

# Rubin & Hays

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August 31, 2004

Ms. Elizabeth O'Donnell  
Executive Director  
Public Service Commission  
P.O. Box 615  
Frankfort, Kentucky 40602

Case 2004-00339

**RECEIVED**

AUG 31 2004

PUBLIC SERVICE  
COMMISSION

Re: Bullock Pen Water District - Kentucky Public Service Commission Application for a CPCN for a Water System Improvements Project, approval of financing and a surcharge

Dear Ms. O'Donnell:

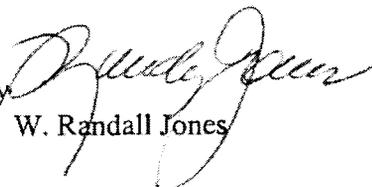
Enclosed please find the original and ten (10) copies of the Application of the Bullock Pen Water District for a Certificate of Public Convenience and Necessity to construct and finance a water system improvements project and approval of a surcharge to new customers, pursuant to KRS Chapter 278.

Also enclosed are eleven (11) copies of the exhibits required, with the exception of the Preliminary and Final Engineering Reports and the Plans and Specifications, prepared by CMW, Inc., the Engineers on the Project, two of which are enclosed.

If you need any additional information or documentation, please let us know.

Sincerely,

Rubin & Hays

By   
W. Randall Jones

WRJ:jlm  
Enclosures

cc: Ms. Paula Massie, BPWD  
Ms. Kristen Curtis, Morgan Keegan

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

**RECEIVED**

AUG 3 1 2004

PUBLIC SERVICE  
COMMISSION

In the matter of:

APPLICATION OF THE BULLOCK PEN WATER )  
DISTRICT FOR A CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY TO )  
CONSTRUCT AND FINANCE AN IMPROVE- ) Case No. 2004-00339  
MENTS PROJECT AND TO IMPLEMENT A )  
SURCHARGE TO ITS EXISTING RATES )  
PURSUANT TO KRS 278.020 AND 278.300 )

APPLICATION

The Bullock Pen Water District (the "District"), by counsel, pursuant to KRS 278.020, petitions the Commission for a certificate of public convenience and necessity to construct a waterworks improvement project and finance said project. The District also petitions the Commission for approval of a surcharge to its existing rates in order to pay the debt service on the indebtedness necessary to finance a portion of the Project. The following information is filed in accordance with the Commission's regulations:

1. The District's office address is P.O. Box 188, One Farrell Drive, Crittenden, Kentucky 41030. Its principal officers are listed in its 2003 Annual Report, which is on file with the Commission;
2. The District is a non-profit water district organized under KRS Chapter 74 and has no separate articles of incorporation or by-laws;
3. A description of the District's water system and its property stated at original cost by accounts is contained in its 2003 Annual Report, which is incorporated by reference pursuant to 807 KAR 5:001 Section (5)(5). All required normal financial schedules and other data are in the Annual Report;

4. The District serves approximately 5,846 residential customers in Grant, Kenton, Pendleton, Boone and Gallatin Counties. The bulk of the District's customers are located in Grant County and the District has a very limited amount of non-residential customers;

5. The Phase 7 water system improvements project (the "Project") consists of the installation of approximately 2.6 miles of 8 inch water line with appurtenances (see the Preliminary Engineering Report for a more detailed description of the Project);

6. The project is in the public interest and is required to permit continued growth in the Boone County service area and contemplates service to an additional 90 customers;

7. The total project cost is approximately \$362,300, as forth in the Final Project Cost filed herewith as **Exhibit A**;

8. The District has obtained all easements are required for the Project;

9. This service will not compete with any other utility in the area;

10. Based on these facts, the District believes that it is in the public interest that this certificate be granted and that the plan of financing be authorized;

11. Copies of the certified bid tabulations are contained in the Final Engineering Report;

12. The following information is provided in response to 807 KAR 5:001 Section (8)(3);

a. Articles of Incorporation - None, the District is a statutorily created water district under KRS Chapter 74;

13. The following information is supplied to 807 KAR 5:001 Section (9)(2);

a. Facts relied upon to show that the Project is in the public interest: The area scheduled for inclusion in the Project was selected and determined by the District based upon engineering requirements and the District's ability to provide water service to the largest number

of customers while constructing the least amount of required improvements. The completion of the Project will have no adverse affect or impact on the remaining customers of the District, nor will the Project adversely affect the District's ability to provide adequate water pressure and water supply to its existing and projected future customers located within the District's geographic boundaries.

b. No new franchises are required. Copies of the permits are contained in the Final Engineering Report;

c. Diagrams of the proposed construction and construction specifications are contained in the Plans and Specifications on file with the Commission;

d. Three (3) maps of suitable scale showing location of the proposed facilities are filed with this Application;

e. The construction costs will be funded by (i) customer connection fees in the amount of \$19,475; (ii) a contribution from Boone County in the amount of \$120,767; (iii) a Kentucky Infrastructure Authority 2020 grant in the amount of \$128,800; and (iv) a Loan in the approximate amount of \$103,000 from the Kentucky Rural Water Finance Corporation through it's Flexible Term Program (see preliminary schedules of Morgan Keegan attached as **Exhibit B**).

f. The estimated cost of operation of the system after construction is completed is will not change due to the fact that the Project consists mainly of additional water lines. All water meters are radio read so there will not be any increase in labor expense for the reading of the additional meters;

14. The following information is provided as required by 807 KAR 5:001 Section (11)(1);

a. A general description of the property is contained in the 2003 Annual Report;

b. Financial information relating to the KRWFC Loan is contained in the Schedules referred to in paragraph 13(e) above;

c. All funds are to be used in accordance with the Project Budget, see Final Engineering Report;

d. No property will be acquired in connection with this Project;

e. No proceeds of the KRWFC Loan will be used to refund outstanding obligations.

f. The KRWFC Loan will be repaid out of the revenues of the District's system.

15. The following exhibits are provided pursuant to 807 KAR 5:001 section (11)(2);

a. The District hereby requests and moves for a deviation, pursuant to 807 KAR 5:001, Section 14, from the requirements of 807 KAR 5:001, Section 6, which requires that the financial data filed with the Application be for a twelve (12) month period ending within ninety (90) days of the filing of the application. The District states that there has been no change that is material in nature in the financial condition or operation of the District since December 31, 2003. The financial data filed herewith as **Exhibit C** is for the twelve (12) month period ending December 31, 2003. This is the most recent published financial data available. Because the Project has been bid and the District is under a bid-hold period by the Contractors, the District cannot run the risk of delaying the commencement of the Project and losing the favorable bids while more current financial data is compiled;

b. There are no trust deeds or mortgages applicable;

c. Maps and detailed plans are on file with the Commission.

16. The District proposes to implement a monthly surcharge to each customer requesting water within the Project area. This monthly surcharge will be charged to each customer who initially signs up for water service as well as any new customer who may request water service within the Project area in the future. The surcharge will continue until the Loan has been paid in full.

a. The initial monthly surcharge has been established at \$20.00. The method of calculation is described in **Exhibit D**;

b. All surcharge amounts received by the District would be placed in a separate interest bearing account with the District and would be restricted to Loan payments only;

c. The District proposes to recalculate the surcharge amount at the end of each 60 month anniversary of the date of the Loan in order to provide for the Loan payments, taking into account any change in the number of customers in the Project area;

d. The District would reserve the right to recalculate the surcharge prior to the 60<sup>th</sup> month anniversary should a significant number of new customers be added to the Project area. Any subsequent reassessment of the surcharge would then be made on the 60<sup>th</sup> month anniversary of any accelerated assessment modification in the surcharge;

e. All monthly surcharges would terminate at such time as the Loan was paid in full;

f. Potential customers in the Project area have been contacted by the District. For the most part, potential customers have indicated their support for the Project and have not objected to the assessment of a monthly surcharge in order to provide funding for the Project. It is anticipated that the average cost of a customer's monthly base water bill and monthly surcharge will

be substantially less than the cost a potential customer currently incurs for water based on current water hauling charges.

17. District requests that it be granted a deviation under 807 KAR 5:001(14), if necessary to accommodate any situation where inflexible compliance with a regulation would be impracticable, onerous or which would hinder District's daily operations.

**WHEREFORE**, the Applicant, Bullock Pen Water District requests that the Public Service Commission of Kentucky grant to the Applicant the following:

A. A certificate of public convenience and necessity permitting the Applicant to construct a water system improvement project;

B. An order approving the financing arrangements, including the loan from the Kentucky Rural Water Finance Corporation in the approximate amount of \$103,000.

C. An order granting the District's surcharge in the amount of \$20.00 per month for customers in the Project area, with recalculations every 60<sup>th</sup> month from the date of the Loan, until the Loan is paid in full.

D. Applicant's motion for a deviation from the 90 day requirement for financial information as required by 807 KAR 5:001 Section (11)(2)(a).





**Project Cost**  
**Bullock Pen Water Extension, Phase 7**  
**Boone County**  
**7/15/04**

1.	Construction Cost	\$280,418
2.	Legal Expense	\$7,000
3.	Easement Preparation	\$5,000
4.	Obtaining Easements	\$1,000
5.	Recording Fees	\$200
6.	Legal Advertisement, Printing and Postage	\$670
7.	Preliminary Engineering	\$5,000
8.	Engineering Design	\$21,024
9.	Resident Inspection	\$18,008
10.	Loan Expense	\$6,000
11.	Condemnation (Award, Attorney Fee and Recording Fee)	\$3,871
12.	Contingencies	<u>\$14,109</u>
	Total Project Cost:	\$362,300

Financing Cost

Tap-on Fee – 41 x \$475	\$19,475
KIA 2020 Grant	\$128,800
Boone County Contribution	\$120,767
Surcharge Loan	<u>\$93,258</u>
Total Project Cost:	\$362,300

Surcharge Calculation 4%

12 year loan – 4% interest – 41 customers  
Yearly payment - \$9,937  
Monthly surcharge per customer - \$20.20  
Use monthly surcharge of \$20



**\$103,000**

Bullock Pen Water District  
Kentucky Rural Water Finance Corporation  
Flexible Term Finance Program

## Sources & Uses

Dated 09/01/2004 | Delivered 029/22/2004

### SOURCES OF FUNDS

Par Amount of Bonds	\$103,000.00
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<b>TOTAL SOURCES</b>	<b>\$103,000.00</b>
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### USES OF FUNDS

Total Underwriter's Discount (1.500%)	1,545.00
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Costs of Issuance	7,500.00
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Gross Bond Insurance Premium ( 29.0 bp)	376.43
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Deposit to Project Construction Fund	93,258.00
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Rounding Amount	320.57
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<b>TOTAL USES</b>	<b>\$103,000.00</b>
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**\$103,000**

Bullock Pen Water District  
Kentucky Rural Water Finance Corporation  
Flexible Term Finance Program

## Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
08/01/2004	-	-	1,596.99	1,596.99
02/01/2005	7,000.00	1.680%	1,763.55	8,763.55
08/01/2005	-	-	1,704.75	1,704.75
02/01/2006	7,000.00	2.210%	1,704.75	8,704.75
08/01/2006	-	-	1,627.40	1,627.40
02/01/2007	8,000.00	2.560%	1,627.40	9,627.40
08/01/2007	-	-	1,525.00	1,525.00
02/01/2008	8,000.00	2.950%	1,525.00	9,525.00
08/01/2008	-	-	1,407.00	1,407.00
02/01/2009	8,000.00	3.240%	1,407.00	9,407.00
08/01/2009	-	-	1,277.40	1,277.40
02/01/2010	8,000.00	3.450%	1,277.40	9,277.40
08/01/2010	-	-	1,139.40	1,139.40
02/01/2011	9,000.00	3.650%	1,139.40	10,139.40
08/01/2011	-	-	975.15	975.15
02/01/2012	9,000.00	3.810%	975.15	9,975.15
08/01/2012	-	-	803.70	803.70
02/01/2013	9,000.00	3.960%	803.70	9,803.70
08/01/2013	-	-	625.50	625.50
02/01/2014	10,000.00	4.060%	625.50	10,625.50
08/01/2014	-	-	422.50	422.50
02/01/2015	10,000.00	4.180%	422.50	10,422.50
08/01/2015	-	-	213.50	213.50
02/01/2016	10,000.00	4.270%	213.50	10,213.50
<b>Total</b>	<b>\$103,000.00</b>	<b>-</b>	<b>\$26,803.14</b>	<b>\$129,803.14</b>

### Yield Statistics

Bond Year Dollars	\$706.14
Average Life	6.856 Years
Average Coupon	3.7957470%
Net Interest Cost (NIC)	4.0145433%
True Interest Cost (TIC)	4.0285518%
Bond Yield for Arbitrage Purposes	3.8323843%
All Inclusive Cost (AIC)	5.8474417%

### IRS Form 8038

Net Interest Cost	3.7957470%
Weighted Average Maturity	6.856 Years

**\$103,000**

Bullock Pen Water District  
Kentucky Rural Water Finance Corporation  
Flexible Term Finance Program

## Net Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	Expenses	Net New D/S
12/30/2004	-	-	1,596.99	1,596.99	-	1,596.99
12/30/2005	7,000.00	1.680%	3,468.30	10,468.30	250.00	10,718.30
12/30/2006	7,000.00	2.210%	3,332.15	10,332.15	250.00	10,582.15
12/30/2007	8,000.00	2.560%	3,152.40	11,152.40	250.00	11,402.40
12/30/2008	8,000.00	2.950%	2,932.00	10,932.00	250.00	11,182.00
12/30/2009	8,000.00	3.240%	2,684.40	10,684.40	250.00	10,934.40
12/30/2010	8,000.00	3.450%	2,416.80	10,416.80	250.00	10,666.80
12/30/2011	9,000.00	3.650%	2,114.55	11,114.55	250.00	11,364.55
12/30/2012	9,000.00	3.810%	1,778.85	10,778.85	250.00	11,028.85
12/30/2013	9,000.00	3.960%	1,429.20	10,429.20	250.00	10,679.20
12/30/2014	10,000.00	4.060%	1,048.00	11,048.00	250.00	11,298.00
12/30/2015	10,000.00	4.180%	636.00	10,636.00	250.00	10,886.00
12/30/2016	10,000.00	4.270%	213.50	10,213.50	250.00	10,463.50
<b>Total</b>	<b>\$103,000.00</b>	<b>-</b>	<b>\$26,803.14</b>	<b>\$129,803.14</b>	<b>\$3,000.00</b>	<b>\$132,803.14</b>



BULLOCK PEN WATER DISTRICT

BALANCE SHEETS  
DECEMBER 31, 2003 AND 2002

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<u>ASSETS</u>	<u>2003</u>	<u>2002</u>
UTILITY PLANT IN SERVICE, AT COST:		
Land, System, Building & Equipment (Note 2) . . . .	\$15,127,852	\$14,075,402
Construction in Progress . . . . .	1,182,198	183,708
Less Accumulated Depreciation . . . . .	<u>(3,657,923)</u>	<u>(3,353,594)</u>
Net Total Utility Plant . . . . .	<u>12,652,127</u>	<u>10,905,516</u>
CURRENT ASSETS		
Cash and Cash Equivalents . . . . .	305,943	450,191
Certificates of Deposit . . . . .	138,291	136,253
Accounts Receivable - Customers . . . . .	256,068	231,826
Accounts Receivable - Other . . . . .	3,528	10,042
Inventories . . . . .	162,208	103,130
Prepaid Expenses . . . . .	9,989	10,382
Accrued Interest Income . . . . .	228	604
Unamortized Expenses . . . . .	<u>13,917</u>	<u>7,783</u>
Total Current Assets . . . . .	<u>890,172</u>	<u>950,211</u>
RESTRICTED ASSETS (Note 3)		
Debt Service Reserve Fund - Kentucky Infrastructure . . . . .	151,220	149,716
Debt Service Reserve Fund - Rural Development . . . . .	244,286	238,708
Debt Payment Account . . . . .	166,939	130,896
Replacement Reserve . . . . .	32,264	-0-
Customer Deposits . . . . .	113,051	99,492
Construction Accounts Receivable . . . . .	213,124	128,830
Construction Funds . . . . .	162,518	89,027
Loan Proceeds Available for Draw . . . . .	<u>359,091</u>	<u>-0-</u>
Total Restricted Assets . . . . .	<u>1,442,493</u>	<u>836,669</u>
OTHER ASSETS		
Unamortized Debt Discounts . . . . .	88,254	80,126
Unamortized Tap-In Expenses . . . . .	60,010	61,643
Deferred Rate Case Expense . . . . .	<u>20,273</u>	<u>3,476</u>
Total Other Assets . . . . .	<u>168,537</u>	<u>145,245</u>
Total Assets . . . . .	<u>\$15,153,329</u>	<u>\$12,837,641</u>

SEE ACCOMPANYING NOTES TO FINANCIAL STATEMENTS

BULLOCK PEN WATER DISTRICT

BALANCE SHEETS  
DECEMBER 31, 2003 AND 2002

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LIABILITIES AND EQUITY CAPITAL

CAPITALIZATION

	<u>2003</u>	<u>2002</u>
RETAINED EARNINGS		
Reserved or Restricted .....	\$ 430,061	\$ 358,153
Unreserved .....	622,038	939,375
Contributed (Note 9) .....	<u>6,938,373</u>	<u>6,301,236</u>
Total Retained Earnings .....	<u>7,990,472</u>	<u>7,598,764</u>
LONG - TERM DEBT		
Revenue Bonds Payable (Note 4) .....	2,482,000	2,128,000
Notes Payable (Note 5) .....	1,599,232	1,005,743
Capital Lease Obligations (Note 7 & 8) .....	<u>1,874,423</u>	<u>1,485,000</u>
Total Long-Term Debt .....	<u>5,955,655</u>	<u>4,618,743</u>
Total Capitalization .....	<u>13,946,127</u>	<u>12,217,507</u>

LIABILITIES

CURRENT LIABILITIES

Accounts Payable - General .....	154,659	105,422
Withheld & Accrued Liabilities .....	<u>40,111</u>	<u>36,196</u>
Total Current Liabilities .....	<u>194,770</u>	<u>141,618</u>

CURRENT LIABILITIES

PAYABLE FROM RESTRICTED ASSETS

Revenue Bonds - Current Portion (Note 4) .....	106,000	72,000
Notes Payable - Current Portion (Note 5) .....	100,229	47,412
Lease Obligations -		
Current Portion (Note 7 & 8) .....	87,627	73,586
Customer Deposits .....	90,091	86,241
Accrued Interest Payable .....	49,442	37,561
Accounts Payable - Construction & Meters .....	<u>579,043</u>	<u>161,716</u>

Total Liabilities Payable from Restricted Assets .....	<u>1,012,432</u>	<u>478,516</u>
Total Liabilities .....	<u>1,207,202</u>	<u>620,134</u>
Total Liabilities & Equity Capital .....	<u>\$15,153,329</u>	<u>\$12,837,641</u>

SEE ACCOMPANYING NOTES TO FINANCIAL STATEMENTS

BULLOCK PEN WATER DISTRICT

STATEMENTS OF REVENUES, EXPENSES AND  
CHANGES IN RETAINED EARNINGS  
FOR THE YEARS ENDED DECEMBER 31, 2003 AND 2002

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	<u>2003</u>	<u>2002</u>
OPERATING REVENUES		
Water & Penalties .....	\$1,789,550	\$1,778,264
Miscellaneous Service Revenues .....	<u>37,054</u>	<u>33,878</u>
Total Operating Revenues .....	<u>1,826,604</u>	<u>1,812,142</u>
OPERATING REVENUE DEDUCTIONS		
Operating Expenses .....	1,478,177	1,366,620
Depreciation & Amortization .....	311,436	291,600
Taxes .....	<u>39,780</u>	<u>37,226</u>
Total Operating Expenses .....	<u>1,829,393</u>	<u>1,695,446</u>
OPERATING INCOME/(LOSS) .....	<u>(2,789)</u>	<u>116,696</u>
NON-OPERATING INCOME		
Interest on Investments .....	10,825	19,212
Contributions in Aid of Construction (Note 9)		
Customer Tap on Fees .....	114,135	184,469
Contributed Lines .....	256,643	115,090
Other Grants .....	<u>266,359</u>	<u>746,438</u>
Total Non-Operating Income .....	<u>647,962</u>	<u>1,065,209</u>
Sub-Total .....	<u>645,173</u>	<u>1,181,905</u>
NON-OPERATING DEDUCTIONS		
Loss on Sale of Fixed Assets .....	689	-0-
Interest .....	246,168	231,972
Amortization Expense .....	<u>6,608</u>	<u>2,586</u>
Total Non-Operating Expenses .....	<u>253,465</u>	<u>234,558</u>
Net Income .....	391,708	947,347
Retained Earnings, January 1 .....	<u>7,598,764</u>	<u>6,651,417</u>
Retained Earnings, December 31 .....	<u>\$7,990,472</u>	<u>\$7,598,764</u>

SEE ACCOMPANYING NOTES TO FINANCIAL STATEMENTS

BULLOCK PEN WATER DISTRICT

STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED DECEMBER 31, 2003 AND 2002

	<u>2003</u>	<u>2002</u>
<b>OPERATING ACTIVITIES</b>		
Net Income/(Loss) from Operations .....	\$ (2,789)	\$ 116,696
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation & Amortization .....	321,171	300,014
Change in Operating Assets & Liabilities:		
(Increase) in Receivables .....	(17,728)	(8,000)
(Increase) in Inventories .....	(59,078)	(17,172)
(Increase)/Decrease in Prepaid & Accrued Assets .....	769	(1,302)
Increase in Accounts Payable .....	49,237	18,314
Increase in Accrued Liabilities .....	<u>3,915</u>	<u>10,050</u>
Net Cash Provided by Operating Activities .....	<u>295,497</u>	<u>418,600</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Interest on Investments .....	10,825	19,212
Purchase Certificates of Deposit .....	<u>(2,038)</u>	<u>(2,792)</u>
Net Cash Provided by Investing Activities ..	<u>8,787</u>	<u>16,420</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Acquisition and Construction of Capital Assets .	(1,812,602)	(1,940,560)
Deferred Rate Case Expenses .....	(21,866)	(3,476)
Contributions in Aid of Construction .....	371,554	917,277
Proceeds from Long-Term Debt .....	1,890,278	1,639,367
Debt Issuance Costs .....	(15,800)	(53,011)
Insurance Proceeds for Fixed Assets Replacement	11,346	-0-
Interest on Long-Term Debt .....	(246,168)	(231,972)
Retirement of Long-Term Debt .....	(452,508)	(741,906)
(Increase) in Restricted Assets .....	(605,824)	(65,686)
Increase in Customer Deposits and Restricted Payable .....	<u>433,058</u>	<u>140,295</u>
Net Cash Used In Capital and Related Financing Activities .....	<u>(448,532)</u>	<u>(339,672)</u>
INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS .	(144,248)	95,348

SEE ACCOMPANYING NOTES TO FINANCIAL STATEMENTS

BULLOCK PEN WATER DISTRICT

STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED DECEMBER 31, 2003 AND 2002

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	<u>2003</u>	<u>2002</u>
INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS . . . . .	\$(144,248)	\$ 95,348
CASH AND CASH EQUIVALENTS - JANUARY 1 . . . . .	<u>450,191</u>	<u>354,843</u>
CASH AND CASH EQUIVALENTS - DECEMBER 31 . . . . .	<u>\$ 305,943</u>	<u>\$450,191</u>

Interest paid was \$244,144 and \$224,527 during 2003 and 2002, respectively.

Bullock Pen Water District is a governmental agency which is not subject to income tax, therefore, no income taxes were paid during 2003 and 2002.

NON-CASH TRANSACTIONS

During 2003 and 2002 the District received title to \$256,643 and \$115,090, respectively of waterlines, meters, and hydrants without cost as these items were installed in subdivisions and mobile home parks by the contractor and after a one year warranty period became the property of Bullock Pen Water District or were installed by The Kentucky Department of Transportation as part of a line relocation project. The cost of these contributed assets were estimated by the District.

During 2003 and 2002 Boone County Fiscal Court paid engineering fees in the amount of \$8,940 and \$13,630, respectively, related to construction. These amounts were included in the cost of these projects and were capitalized in the District's books.

During 2003 the District disposed of assets having a cost of \$27,245 and accumulated depreciation of \$15,210.

During 2002 Kentucky Infrastructure Authority refinanced 3 notes payable that the District held. The amount owed on these notes increased by \$24,669 which represented the issue cost of the refinanced notes.

SEE ACCOMPANYING NOTES TO FINANCIAL STATEMENTS



**Exhibit**  
**Surcharge Calculations**  
**Bullock Pen Water Line Extension Phase VII**  
**McCoy Fork Water Line**

Project cost = \$362,300

Phase VII Customers Signed Up = 41

Financing Cost

Tap-on Fee – 41 x \$475	\$19,475
KIA 2020 Grant	\$128,800
Boone County Contribution	\$120,767
Surcharge Loan	<u>\$93,258</u>
 Total Project Cost	 \$362,300

Surcharge Calculations

Loan to be Covered by Surcharge	\$93,258
Interest Rate – 4% from Bob Pennington of Morgan Keegan	
Monthly Service Charge for Customers in Boone County	\$20
Surcharge Fee Available Yearly Per Customer	\$240
Surcharge Fee Available Yearly (41 Customers)	\$9,840
For a 12 Year Loan @ 4% Interest – Yearly Payment Would Be	\$9,937
Yearly Difference to Make Up with Additional Customers	\$97

Use Monthly Surcharge of \$20 with 12 Year KRWA Loan

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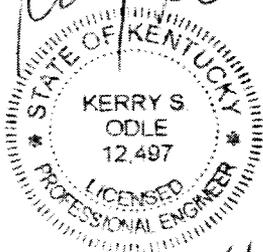
**Preliminary Engineering Report**

**Bullock Pen Water Extension Phase 7  
(McCoy Fork)  
Bullock Pen Water District**

**By**

**CMW, Inc.  
138 N. Keeneland Drive  
Suite E  
Richmond, KY 40475**

**July, 2001**

*Kerry S Odle*  
  
*7/23/04*

## Table of Contents

- I. General Description of Project
- II. Project Map
- III. Project Profile
- IV. Preliminary Project Summary
- V. Preliminary Project Cost
- VI. Preliminary Construction Estimate
- VII. Letter to Boone County Judge/Executive

I. General Description of Project

Bullock Pen Water District serves approximately 5310 customers in Grant, Boone, Kenton, Pendleton and Gallatin Counties. Potable water that supplies the district comes from the Bullock Pen Water Treatment Plant, City of Walton, City of Williamstown and Northern Kentucky Water Service District.

The proposed project will consist of 2.6 miles water line extension to serve 75 new customers in Boone County. Project will consist of new water line extension along McCoy Fork and adjacent roads. The potential customers currently use cisterns and bottle water for their water needs. At the end of McCoy Fork Road is an operating landfill. The construction of this project is contingent on the water line being funded by Transportation Cabinet and constructed under I-71 to serve the weigh station.

Preliminary hydraulics have been done for the potential water line extension which shows that the areas can be served by the existing water lines, water storage tanks and master meters.

Funding for project will consist of a potential KIA grant, customer tap-on fees, contribution from Boone County Fiscal Court and a surcharge loan.

# KENTUCKY WATER/WASTEWATER PROJECT PROFILE

## 1. Project Title:

Bullock Pen Water Line Extension, Phase 7

## 2. Project Description:

Water line extension in Boone County consisting of 2.6 miles to serve 75 new customers who are not served by a potable water source. Project will consist of new water line extension along McCoy Fork and adjacent roads. The construction of this project is contingent on water line being constructed under I-71 to serve weigh station.

WRIS Project Number: \*

*\*This number shall be assigned by the ADDs through the Water Management and will tie each project to mapped/spatial information in the Water Resource Information System (WRIS). Submitted projects without this number AND the appropriate mapped/spatial information will NOT be accepted.*

## 3. Legal Applicant

Applying Entity:

Authorized Official:

Title:

Street/PO Box:

City:

Zip Code:

Contact Person:

Telephone:

Fax:

E-Mail Address:

Project Administrator:

Consulting Engineer:

Phone:

Phone:

If water project  
PWSID#

0410047

If wastewater  
project, KPDES#(s):

If wastewater collect  
project, KIMOP#(s)

**4. Application:**

New     Revision

If revision, originally directed to: (agency)

**5. Project Type (check all that apply):**

- Planning
- Sewer System Evaluation Survey Report
- Design
- Construction
- Managment

**6. Project Alternatives: Please list a minimum of three:**

- a.  
- b.  
- c.  

**7. Special Impact(s) of Proposed Water/Wastewater Project:**

- a. New service/improve service to   unserved  underserved house
- b. Number of jobs:   new     retained
- c. Other beneficial technical, managerial, fiscal impacts: (20 words or less)  
 
- d. Rate impact/reasonableness of cost:  
 

e. If proposed extension of service to existing home is related to public health protection, please describe the source water quality and availability:

A operating landfill is being operated in the area to be served. Currently cisterns are used.

**8. Median House Hold Income of Service Area:**

\$  (Boone County, 1997 - U of L Study)

**9. Project Start Schedule:**

Years 0-2     Years 3-10     Years 11-20

**10. Estimated Funding Sources:**

TABLE 1: ESTIMATED FUNDING

	Total	SRF Amount Water	SRF Amount Wastewater	CDBG Amount	KIA 2020 Fund	Other (name)
0-2 Years	<input type="text" value="257,600"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="128,800"/>	<input type="text" value="128,800"/>
3-10 Years	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
11-12 Years	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
TOTAL	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>

Continue with Water Project

Continue with Wastewater Project

### 11. Project Data - Water (complete all items which apply to your project)

#### Source Protection

Acres

Cost (\$/acre)

Use control (r/c)

#### Drinking Water Facilities

##### a. Source (gpd)

Number of new surface/spring sources

Total GPD

Number of new wells

Total GPD

Elimination of Public Water Systems through Mergers (guidelines)

Systems serving 500 or fewer population

Systems serving 501-3,000 population

Systems serving 3,001-10,000 population

Systems serving 10,001 or greater population

##### Interconnections

Elimination of water treatment plants

Supplemental potable water supply

Emergency backup potable water supply

##### Source Water Quantity and Quality

Replace existing raw water source

Supplemental existing raw water source

Briefly describe why the above items apply to your project:

##### b. Water Treatment

Proposed design capacity  MGD (as a result of this project) (guidelines)

Project will involve expansion or modification of

...

- Pre-titration
- Filtration
- Disinfection Process

**Microbiology and Turbidity**

- CT removal requirements
- CT inactivation requirements
- Finished water turbidity

**Best Available Technologies**

- VOCs    IOCs    SOCs    Radionuclides
- Disinfectants    Disinfection by-products
- Secondary contaminants

Briefly describe why the above items, if checked, apply to your project:

**c. Water Distribution (Rehab/Improvements)**

Proposed project involves construction of line

Total linear feet

Line Size (in inches)    2    4    6    8    10    greater than 10

Material    Ductile Iron    PVC    PE   Other

Project activity improves pressure, as a result of

Replacement of  total linear feet of inadequately sized lines

total gallons of increased storage

Leaks, Breaks, or restrictive flows due to age

Project activity improves water quality by providing:

Adequate turnover of water

Proper maintenance of disinfection residual

Replacement of  total linear feet of lead, copper, asbestos-cement lines

Briefly describe why the above items apply to your project:

**d. Management (describe)(guidelines)**

**e. Other (describe) (guidelines)**

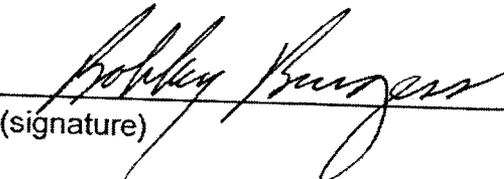
Total Estimated Project Cost (water) \$

I acknowledge and affirm that the preliminary project data and information provided herein as a Water/Wastewater Project Profile is accurate to the extent of my knowledge, and the submission to agencies of the United States Government and the Commonwealth of Kentucky as a document represents an official act of the Bullock Pen Water District in seeking the implementation of said project, as so authorized.

Submitted this: 5th day of June, 2001

Authorized Official:

Bobby Burgess, Chairman

  
(signature)

[Back to General Information](#)

**Project Summary**  
**Bullock Pen Water Line Extension, Phase 7**  
**Boone County**

<u>Road Name</u>	<u>Length</u>	<u>Customers</u>	<u>Construction Cost</u>
1. McCoy Fork	1.7 mi.	48	\$117,460
2. Hudson Lane	0.2 mi.	7	\$15,250
3. Woodwind Drive	0.45 mi.	13	\$31,620
4. McCoy Spur	0.1 mi.	4	\$8,490
5. Beaver Branch	<u>0.15 mi.</u>	<u>3</u>	<u>\$10,000</u>
Total:	2.6 mi.	75	\$182,820

**Preliminary Project Cost  
Bullock Pen Water Extension, Phase 7  
Boone County**

1.	Construction Cost	\$182,820
2.	Legal Expense	\$8,000
3.	Environmental	\$5,000
4.	Preliminary Engineering	\$5,000
5.	Engineering Design	\$21,024
6.	Resident Inspection	\$18,008
7.	Loan Expense	\$5,000
8.	Contingencies	<u>\$12,748</u>
<b>Total Preliminary Project Cost:</b>		<b>\$257,600</b>

**Preliminary Construction Estimate  
Bullock Pen Water Extension, Phase 7  
Boone County**

1.	McCoy Fork - 48 Customers - 1.7 Mi.	
	a. 6" PVC Water Main - 9,000 LF @ \$7.20/LF	\$64,800
	b. 6" Gate Valve - 4 EA @ \$490/EA	\$1,960
	c. Connection to Ex. Water Line - 1 EA @ \$1,500/EA	\$1,500
	d. Fire Hydrants - 10 EA @ \$1,800/EA	\$18,000
	e. Meters w/ Service Line - 48 EA @ \$650/EA	<u>\$31,200</u>
	Total McCoy Fork:	\$117,460
2.	Hudson Lane - 7 Customers - 0.2 Mi.	
	a. 6" PVC Water Main - 1,100 LF @ \$7.20/LF	\$7,920
	b. 6" Gate Valve - 2 EA @ \$490/EA	\$980
	c. Fire Hydrant - 1 EA @ \$1,800/EA	\$1,800
	d. Meters w/ Service Line - 7 EA @ \$650/EA	<u>\$4,550</u>
	Total Hudson Lane:	\$15,250
3.	Woodwind Drive - 13 Customers - 0.45 Mi.	
	a. 6" PVC Water Main - 2,400 LF @ \$7.20/LF	\$17,280
	b. 6" Gate Valve - 1 EA @ \$490/EA	\$490
	c. Fire Hydrant - 3 EA @ \$1,800/EA	\$5,400
	d. Meters w/ Service Line - 13 EA @ \$650/EA	<u>\$8,450</u>
	Total Woodwind Drive:	\$31,620
4.	McCoy Spur - 4 Customers - 0.1 Mi.	
	a. 6" PVC Water Main - 500 LF @ \$7.20/LF	\$3,600
	b. 6" Gate Valve - 1 EA @ \$490/EA	\$490
	c. Fire Hydrant - 1 EA @ \$1,800/EA	\$1,800
	d. Meters w/ Service Lines - 4 EA @ \$650/EA	<u>\$2,600</u>
	Total McCoy Spur:	\$8,490

5.	Beaver Branch - 3 Customers - 0.15 Mi.	
a.	6" PVC Water Main - 800 LF @ \$7.20/LF	\$5,760
b.	6" Gate Valve - 1 EA @ \$490/EA	\$490
c.	Fire Hydrant - 1 EA @ \$1,800/EA	\$1,800
d.	Meters w/ Service Line - 3 EA @ \$650/EA	<u>\$1,950</u>
	Total Beaver Branch:	\$10,000

*Bullock Pen Water District*

*File BPWD PH 7*

June 5, 2001

P.O. Box 188 • 1 Farrell Drive  
Crittenden, Kentucky 41030  
(859) 428-2112

Honorable Gary Moore  
Boone County Judge/Executive  
P. O. Box 900  
2950 Burlington Pike  
Burlington, KY 41005

Re: Potable Water Service  
McCoy Fork Road

Dear Mr. Moore: ☺

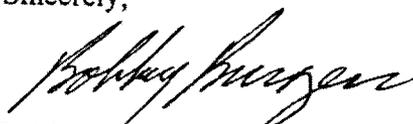
The Bullock Pen Water District is currently in discussion with the Transportation Cabinet to provide water service to the I-71 weigh station. When this water line is constructed, water service can then be provided to McCoy Fork and adjacent roads. The water district would like permission from you and the Fiscal Court to serve this area and to include this area within Bullock Pen Water District's service area. This project would consist of 2.6 miles of water line to serve 75 potential customers in the McCoy Fork area.

To assist in financing this project, attached are two copies of a Kentucky Infrastructure Authority's grant application for the 2020 water program. These applications need to be forwarded to Boone County's 2020 Water Management Planning Council for prioritization and then submitted to the Northern Kentucky Area Development District.

If you have any questions or need additional information, you can contact our office manager, Paula Massie, at 859-428-2112 or our engineer, Kerry Odle, at 859-623-2966.

Thank you for your time and consideration in this matter.

Sincerely,

  
Bobby Burgess, Chairman

Attachment

c: Boone County Water District W/A  
Richard Bragg, NKADD W/A  
CMW, Inc. W/A  
File W/A

**RECEIVED**

AUG 31 2004

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COMMISSION

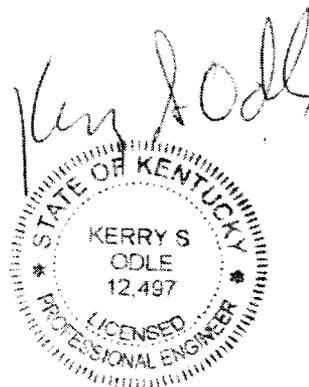
**Final Engineering Report**

**Bullock Pen Water Line Extension Phase 7  
(McCoy Fork)  
Bullock Pen Water District**

**By**

**CMW, Inc.  
138 N. Keeneland Drive  
Suite E  
Richmond, KY 40475**

**July, 2004**



7/23/04

## **Table of Contents**

1. Bid Advertisement
2. Bid Tabulation
3. Minutes of Bid Opening
4. Engineer's Recommendation
5. Bid of Low Bidder
6. Revised Project Cost
7. E-mail from Boone County on Funding
8. KIA Funding Letter
9. Division of Water Approval Letter

## ADVERTISEMENT FOR BIDS

Bullock Pen Water District

Separate sealed BIDS for Water Line Extension - Phase 7 - McCoy Fork Water Line will be received by the Owner at the office of Bullock Pen Water District, Crittenden, Kentucky, until 3:00 p.m. EST on Friday, November 7, 2003 and then publicly opened and read aloud.

Construction of base bid shall consist of approximately 13,985 LF of 8" water line, 23 gate valves, 14 fire hydrants, 248 LF of bores with steel encasement, 1 air relief valve, 38 meters with service piping, 255 LF of freebore, and all other necessary appurtenances.

The CONTRACT DOCUMENTS may be examined at the following locations:

CMW, Inc., 138 N Keeneland Drive, Suite E, Richmond, KY  
Bullock Pen Water District, 1 Farrell Drive, Crittenden, KY  
F. W. Dodge Plan Room/AGC Plan Room, 2321 Fortune Drive, Suite 112, Lexington, KY  
Reed Construction Data/ABC Plan Room, 132 Venture Court, Suite 12, Lexington, KY  
Reed Construction Data/ABC Plan Room, 1812 Taylor Avenue, Louisville, KY  
Allied Construction Industries, 1010 Yale Avenue, Cincinnati, OH  
F. W. Dodge Plan Room, Grant Baldwin Building, 655 Eden Park Road, Suite 515, Cincinnati, OH  
45202

Copies of the CONTRACT DOCUMENTS may be obtained from Lynn Imaging, 328 Old East Vine Street, Lexington, KY 40507, phone 859\255-1021 upon the following non-refundable payment of \$40.00 for each set. Make checks payable to CMW, Inc.

If bidding documents are requested to be sent by mail, include an additional \$10.00 for each set to cover cost of handling and postage. This check shall be made payable to Lynn Imaging.

The Owner reserves the right to waive any informalities or to reject any or all bids.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information for Bidders.

No bidder may withdraw his bid within 120 days after the actual date of the opening thereof.

Award will be made to the lowest responsive Bidder unless all bids are rejected.

Each bidder will make positive efforts to use small, minority, woman owned and disadvantaged businesses.

---

Date

BULLOCK PEN WATER DISTRICT  
CRITTENDEN, KENTUCKY

CMW, INC.  
138 NORTH KEENELAND DRIVE  
SUITE E  
RICHMOND, KENTUCKY



November 11, 2003

To: Bobby Burgess, Chairman  
Bullock Pen Water District

From: Kerry Odle, PE  
CMW, Inc.

Re: Phase 7, Water Line Extension  
McCoy Fork  
Bullock Pen Water District

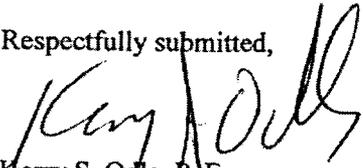
Subject: Bid Opening Minutes

Bids were accepted for Phase 7 Water Line Extension, McCoy Fork until 3:00 p.m. on Friday, November 7, 2003. Kerry Odle introduced himself as project engineer and introduced Bill Catlett, Superintendent of Bullock Pen Water District.

Mr. Odle thanked all bidders and then opened and read aloud all bids as shown on the attached Bid Tabulation Form. The apparent low bidder was announced as Stotts Construction Co., Inc. with a bid of \$280,418.00. The engineer's estimate was announced as \$241,292.00.

All bidders were thanked and the bid opening was considered complete. Attached is a list of all attendees of the bid opening.

Respectfully submitted,

  
Kerry S. Odle, P. E.

KSO/jp

Attachment

c: James Parsons W/A  
File W/A

**CMW**nc.

ARCHITECTURE CIVIL ENGINEERING SURVEYING SITE PLANNING  
138 N. Keeneland Dr., Suite E, Richmond, KY 40475 859.623.2966 Fax 859.623.0886

CMWnc.

Bid Opening  
McCoy Fork Water Line  
Phase 7  
November 7, 2003

<u>Name</u>	<u>Company</u>
GREG MROSEK	Byrnes INC.
ROSEMARY FLYNN	HOWELL CONTRACTORS
NATALIE WILLIAMS	VIKING SUPPLY INC.
Jon Bullington	CPS, INC
RANDY Sipple	Coomer Contractors
Bill GARDNER	WINGHAM
Danny Fields	Richardson Cont
Jim Parsons	Viking Supply
Bill Culetta	BPWD

November 11, 2003

Mr. Bobby Burgess, Chairman  
Bullock Pen Water District  
P. O. Box 188  
Crittenden, KY 41030

Re: Phase 7 Water Line Extension  
McCoy Fork  
Bullock Pen Water District

Dear Bobby:

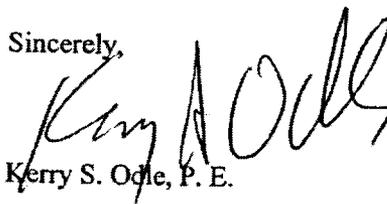
I have reviewed and checked all bids submitted for the contract as listed on the attached Bid Tabulation Form. No errors found on any of the bids.

The lowest bidder is Stotts Construction Co., Inc. with a bid of \$280,418.00. They have done previous work with the water district and are more than capable of doing this work. We are guaranteed a good job when they do the work. The engineer's estimate for this contract was \$241,292.00.

Based on the eight bids received and the second bidder being only \$1,080.50 lower than Stotts, I believe we received a fair bid. With the amount of traffic on the road, other underground utilities, and Boone County's requirement of compaction on county road right-of-way, the work will be slower than normal on this project. Based on this and escalating PVC prices, I do not believe we would get lower bids if re-bid. I recommend that a contract be awarded to Stotts Construction Co., Inc. for the bid price of \$280,418.00.

If you have any questions, give me a call.

Sincerely,



Kerry S. Odle, P. E.

KSO/jp

Attachment

c: James Parsons W/A  
File W/A

**CMW** inc.

ARCHITECTURE CIVIL ENGINEERING SURVEYING SITE PLANNING  
138 N. Keeneland Dr., Suite E, Richmond, KY 40475 859.623.2966 Fax 859.623.0886

CMW inc.

**BID**

**WATER MAIN EXTENSION - PHASE 7  
McCOY FORK WATER LINE  
BULLOCK PEN WATER DISTRICT**

Proposal of STOTTS CONSTRUCTION CO., INC. (hereinafter called "BIDDER"), a corporation organized and existing under the laws of the State of KENTUCKY doing business as A CORPORATION \*.

To the Bullock Pen Water District (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of Water Main Extension - Phase 7 – McCoy Fork Water Line in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, the BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the project within 75 consecutive calendar days. BIDDER further agrees to pay as liquidated damages, the sum of \$300 for each consecutive calendar day thereafter as hereinafter provided in Section 15 of the General Conditions.

\* Insert "a corporation", "a partnership", or "an individual" as applicable.

BIDDER acknowledges receipt of the following ADDENDUM:

No. \_\_\_\_\_ Dated \_\_\_\_\_ No. \_\_\_\_\_ Dated \_\_\_\_\_  
 No. \_\_\_\_\_ Dated \_\_\_\_\_ No. \_\_\_\_\_ Dated \_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices:

- NOTE: (1) BIDS shall include sales tax and all other applicable taxes and fees.
- (2) Breakdown of work is for general information. Any work shown on Drawings and/or specified but not listed below shall be included in total base bid. Cost of items of work not specifically described below may be added to related bid item(s) at bidder's discretion.

**BID SCHEDULE**

Part I. Base Bid

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1.	8" PVC Water Main, Class 200	13,846	LF	\$ 13.00	\$ 179,998.00
2.	8" MJ Gate Valve, Complete w/ Box and Cover	23	EA	\$ 790.00	\$ 18,170.00
3.	Air Relief Valve, Complete w/ Box and Cover	1	EA	\$ 395.00	\$ 395.00
4.	Fire Hydrant, Complete w/ Gate Valve	14	EA	\$ 2,000.00	\$ 28,000.00
5.	Jack and Bore w/ 12" Steel Encasement Pipe	248	LF	\$ 75.00	\$ 18,600.00
6.	Open Cut w/ 12" Steel Encasement Pipe	20	LF	\$ 30.00	\$ 600.00
7.	Freebore for 8" Water Main	385	LF	\$ 20.00	\$ 7,700.00

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
8.	Concrete Encasement	5	CY	\$ 60.00	\$ 300.00
9.	Extra Crushed Stone Bedding	45	TONS	\$ 25.00	\$ 1,125.00
10.	5/8" x 3/4" Meter Unit w/out PRV	38	EA	\$ 385.00	\$ 14,630.00
11.	3/4" PE Service Line	475	LF	\$ 3.00	\$ 1,425.00
12.	1" PE Service Line	1,125	LF	\$ 4.00	\$ 4,500.00
13.	1" PE Service Line, Jacked under Roadway	995	LF	\$ 5.00	\$ 4,975.00

Total Part I: Base Bid:

\$ 280,418.00

(USE FIGURES)

*Two hundred eighty-four thousand four hundred eighteen*  
 (USE WORDS) *dollars & no/cents*

TOTAL AMOUNTS SHALL BE SHOWN IN BOTH WORDS AND FIGURES. IN CASE OF DISCREPANCIES, THE AMOUNT AS WRITTEN IN WORDS SHALL GOVERN.

The above price shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the General Conditions.

Award of the Contract will be based on the lowest and best Total Base Bid.

The Bidder agrees that the Owner reserves the right to delete the whole or any part of the project from the Contract.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of one hundred twenty (120) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within ten (10) days and deliver a surety bond or bonds as required by Article 22 of the General Conditions.

Respectfully submitted:

STOTTS CONSTRUCTION CO., INC.  
(Name of Contracting Firm)

BY: Porter Stotts Jr

TITLE: PRESIDENT

ADDRESS: 3615 BURKESVILLE ROAD  
COLUMBIA KY 42728

DATE: NOVEMBER 7, 2003  
N/A

License No. (if applicable)

Seal (If Bid by Corporation)

Attest: Porter Stotts

END BID FORM

**AUTHENICATION OF BID AND AFFIDAVIT OF NON-COLLUSION AND  
NON-CONFLICT OF INTEREST**

I hereby swear (or affirm) under the penalty for false swearing as provided by KRS 432.170:

1. That I am the bidder (if the bidder is an individual ), a partner in the bidder (if the bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the bidder is a corporation);
2. That the attached bid has been arrived at by the bidder independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment, or services described in the Invitation to Bid, designed to limit independent bidding or competition;
3. That the contents of the bid has not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid and will not be communicated to any such person prior to the official opening of the bid;
4. That the bidder is legally entitled to enter into the contracts with the Bullock Pen Water District and is not in violation of any prohibited conflicts of interest;
5. (Applicable to corporations only) That as a foreign corporation we are registered with the Secretary of State, Commonwealth of Kentucky, and authorized to do business in the State of \_\_\_\_\_ or, that as a domestic corporation we are in good standing with the Secretary of State, Commonwealth of Kentucky . (Check the statement applicable.)
6. That this offer is for 120 calendar days from the date this bid is opened. In submitting the above, it is expressly agreed that, upon proper acceptance by the Bullock Pen Water District of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
7. That I have fully informed myself regarding the accuracy of the statements made in this Affidavit.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

Signed by Porter Stotts Jr PORTER STOTTS, JR.  
Title PRESIDENT  
Firm STOTTS CONSTRUCTION CO., INC. Telephone No. 270-384-2677  
Address 3615 BURKESVILLE ROAD Area Code 270  
City COLUMBIA State KY Zip 42728 Date NOVEMBER 7, 2003  
END SECTION

**Project Cost  
Bullock Pen Water Extension, Phase 7  
Boone County  
7/15/04**

1.	Construction Cost	\$280,418
2.	Legal Expense	\$7,000
3.	Easement Preparation	\$5,000
4.	Obtaining Easements	\$1,000
5.	Recording Fees	\$200
6.	Legal Advertisement, Printing and Postage	\$670
7.	Preliminary Engineering	\$5,000
8.	Engineering Design	\$21,024
9.	Resident Inspection	\$18,008
10.	Loan Expense	\$6,000
11.	Condemnation (Award, Attorney Fee and Recording Fee)	\$3,871
12.	Contingencies	<u>\$14,109</u>
	Total Project Cost:	\$362,300

Financing Cost

Tap-on Fee – 41 x \$475	\$19,475
KIA 2020 Grant	\$128,800
Boone County Contribution	\$120,767
Surcharge Loan	<u>\$93,258</u>
Total Project Cost:	\$362,300

Surcharge Calculation 4%

12 year loan – 4% interest – 41 customers  
 Yearly payment - \$9,937  
 Monthly surcharge per customer - \$20.20  
 Use monthly surcharge of \$20

**Kerry Odle**

---

**From:** <bullockpen@fuse.net>  
**To:** <kodle@cmwaec.com>  
**Cc:** <trn@hlflaw.com>  
**Sent:** Friday, July 16, 2004 9:50 AM  
**Subject:** [Fwd: Phase VII]

>

> From: James Parsons <JParsons@boonecountyky.org>  
> Date: 2004/07/14 Wed PM 12:53:05 GMT  
> To: "Paula Massie (bullockpen@fuse.net)" <bullockpen@fuse.net>  
> CC: Judge Moore <GMoore@boonecountyky.org>, Lisa Buerkley  
> <LBuerkley@boonecountyky.org>  
> Subject: Phase VII

>

> Paula:

>

>

>

>

> This email will confirm that the County will pay the one-third cost of the  
> Phase VII Water Project of the Bullock Pen Water District. Please contact  
> me should you have questions regarding this matter.

>

>

>

> Sincerely,

>

>

>

> James E. Parsons

>

> County Administrator

>

> 859-334-2242

>

>

>



**Kentucky Infrastructure Authority**

375 Versailles Road  
Frankfort, Kentucky 40601-3646  
502-573-0260 • 502-573-0157 fax  
<http://wris.state.ky.us/kia/>

December 26, 2001

Mr. Bobby Burgess  
Bullock Pen Water District  
US 25  
Crittenden, Kentucky 41030

Re: 2020 Account/Infrastructure Revolving Fund (Fund B) Grant Award  
Conditional Commitment Letter  
Project Number WX21015005 in the amount of \$128,800.00

Dear Mr. Burgess:

Governor Paul Patton recently announced that the Board of the Kentucky Infrastructure Authority ("the Authority") has approved funding for your project referenced above. Congratulations!

To secure these funds on a timely basis, please read and follow the two-step process set out in this letter. Funds will not be disbursed until all documentation is completed and all conditions are met.

**Special Grant Conditions**

No expenditures shall be made from the funds awarded toward the proposed project until and at which time the development of the extension to serve the weigh station on I-71 is assured, as evidenced by providing a copy of the Kentucky Transportation Cabinet notification to the District to proceed with that extension.

**Step 1: Information Verification, Project Budget & Certification**

Complete and sign **Attachment A**, and return to the Authority no later than **February 15, 2002**. Attachment A consists of:

**a) Project Profile Verification**

A portion of the information submitted in your Project Profile as part of the Area Water Management Planning Process. Please verify this information. If necessary, make changes by lining through an item and *printing* corrected information in the margins. Please be aware that the information you provided in the Project Profile originally was the basis for your project receiving funding. If significant changes have been made in your project scope or impact, you will be contacted.



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**b) Project Budget**

A detailed budget for your project including sources of funds. Complete, sign and date the project budget on the form provided.

**c) Certification**

A Certification that the information submitted in a and b above is correct. Sign and date the Project Certification.

**Step 2: General Conditions and Grant Assistance Agreement**

Provision of each of the documents cited below constitutes a general condition which must be met before the Authority will sign the Grant Assistance Agreement. You are advised to begin this step immediately after returning the information required in Step 1.

**a) State Clearinghouse Endorsement**

Your project must be submitted to the State Clearinghouse regardless of the stage of development. However, if your project has already been assigned a Clearinghouse number (SAI #) simply provide that number with the Clearinghouse response. KIA will not sign the Assistance Agreement until the Clearinghouse endorsement is received.

**b) Commitment of Matching Funds**

Provide copies of documentation of funding commitments (e.g. local funds, by source; CDBG notice of grant award; RD letter of conditions; or other) from all parties other than the Authority as reflected in the Project Budget.

**c) Project Financial Viability Statement**

The Grantee must provide a statement of its current fiscal year revenue projections and current fiscal year projected operating expenses, together with its most recent annual audit and schedule of rates and charges. Additionally, the Grantee must provide a very brief narrative as regards the overall anticipated fiscal impact that the project will have on its current operations. Compliance with this condition may require additional documentation, which will be determined upon review of the Project Budget by the Authority.

**d) Grant Assistance Agreement**

Once the items set out above are completed, please enclose these items with the signed Grant Assistance Agreement (**Attachment B**) and forward to the Authority. After review, the Authority will sign the Grant Assistance Agreement and return a fully executed copy to you together with **notice that you may then begin to draw your grant funds.**

Regarding disbursement of funds: For those projects that have been constructed or are now under construction, funds will be disbursed to the applicant upon presentation and verification of invoices for materials/services rendered. For all other projects, funds will be disbursed upon request as the project progresses, based on a percentage of participation by each fund source.

Please read the Grant Assistance Agreement carefully. The following are referenced in the Agreement and constitute a listing of Exhibits relating to the Agreement, which must accompany the signed Grant Assistance Agreement.

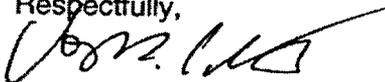
Exhibit 1	Project Profile & Project Budget
Exhibit 2	Projected Request for Payment Schedule
Exhibit 3	Application for Electronic Transfer of Funds
Exhibit 4	Request for Payment and Project Status Report
Exhibit 5	Resolution
Exhibit 6	Statement of Agreement re KUSoA & Cost-based Rates
Exhibit 7	Opinion of Counsel
Exhibit 8	Additional Covenants & Agreements
Exhibit 9	Certificate of Completion

Your attention to the procedural steps and conditions outlined in this letter and compliance with the "Obligations of the Water Utility" set out in the Grant Assistance Agreement will allow for timely receipt of the funds awarded for your project.

It is strongly recommended that you assemble a local "project team" comprised of the authorized representative of the Grantee, a properly procured engineer or engineering firm, and a project administrator. By relying on this team you will be better able to bring your project to construction and closeout in a timely manner.

We recognize that this grant award is a result of a new planning and project selection procedure developed as a collaboration of the Authority, your Area Water Management Planning Council, and local water utilities. There may be issues yet to be worked out. If you have questions or concerns, please do not hesitate to contact me at 502-573-0260 ext. 230 or Vicki.Pettus@mail.state.ky.us.

Respectfully,



Vicki Pettus  
Principal Assistant

Enclosures: Attachment A: Information Verification, Budget, Certification  
Attachment B: Grant Assistance Agreement

c: Water Service Coordinator, NKADD, w/attachments  
Chair, Area Water Management Planning Council, w/o attachments

HENRY C. LIST  
SECRETARY



CMW

PAUL E. PATTON MR  
GOVERNOR

COMMONWEALTH OF KENTUCKY  
**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET**  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

FRANKFORT OFFICE PARK  
14 REILLY RD  
FRANKFORT KY 40601  
April 1, 2003

Bullock Pen Water District  
PO Box 188  
Crittenden, Kentucky 41030

RE: DW #0410047-03-002  
Water Line Extension  
Phase 7-McCoy Fork  
Grant Co., Kentucky

Dear Sirs:

We have reviewed the plans and specifications for the above project. The plans include the construction of approximately 13,870 feet of 8-inch PVC water line. This is to advise that plans and specifications covering the above referenced subject are APPROVED with respect to sanitary features of design as of this date with the following stipulations:

1. Based on the hydraulic analysis/data submitted, the areas served by the following extension(s) are considered to be underserved: McCoy Fork Road, Faith Drive, Hudson Lane and Woodwind Drive. This designation indicates that without improvements to the existing infrastructure, future extensions may not be able to provide the required minimum pressure of 30 psi on the discharge side of customers' meters. Without improvements to the infrastructure, future extensions may be denied. The underserved designation may be used to help prioritize areas under the Governor's 2020 plan for funding future infrastructure improvements.
2. Upon completion of construction, disinfection shall be strictly in accordance with the procedure designated in the State Regulations, which reads as follows:

"A water distribution system, including storage distribution tanks, repaired portions of existing systems or all extensions to existing systems, shall be thoroughly disinfected before being placed into service. A water distribution system shall disinfect with chlorine or chlorine compounds, in amounts as to produce a concentration of at least fifty (50) ppm and a residual of at least twenty-five (25) ppm at the end of twenty-four (24) hours and the disinfection shall be followed by a thorough flushing."

New or repaired water distribution lines shall not be placed into service until bacteriological samples taken at the points specified



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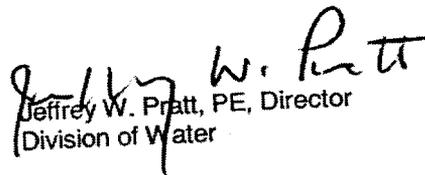
in 401 KAR 8:150 Section 4 (2) are examined and are shown to be negative following disinfection.

3. If PVC piping is used, it must be NSF approved and manufactured in accordance with ASTM standards.
4. Chlorinated water resulting from disinfection of treatment facilities and new, repaired, or extended distribution systems shall be disposed in a manner which will not violate 401 KAR 5:031.
5. When this project is completed, the owner shall submit a written certification to the Division of Water that the above referenced water supply facilities have been constructed and tested in accordance with the approved plans and specifications and the above stipulations. Such certification shall be signed by a licensed professional engineer.

This approval has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this approval does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies.

Unless construction of this project is begun within one year from the date of approval, the approval shall expire. If you have any questions concerning this project, please contact Mike Riley, PE, at (502) 564-2225, extension 592.

Sincerely,

  
Jeffrey W. Pratt, PE, Director  
Division of Water

JWP:JMR

Enclosures

C: CMW, Inc  
Grant County Health Department  
Public Service Commission  
Division of Plumbing  
Florence Regional Office

# CMMW inc.

ARCHITECTURE

CIVIL ENGINEERING

SURVEYING

SITE PLANNING

RECEIVED

AUG 3 1 2004

PUBLIC SERVICE  
COMMISSION

## WATER MAIN EXTENSION - PHASE 7

FOR

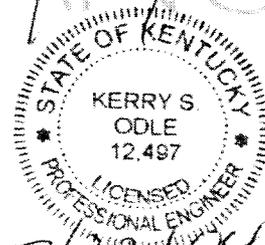
BULLOCK PEN WATER DISTRICT

BOONE COUNTY, KENTUCKY

FEBRUARY , 2003

PROJECT MANUAL

Set No.



**PROJECT MANUAL**

**FOR**

**WATER MAIN EXTENSION - PHASE 7  
MCCOY FORK WATER LINE**

**FOR**

**BULLOCK PEN WATER DISTRICT**

**OWNER:**

**BULLOCK PEN WATER DISTRICT**

**FEBRUARY, 2003**

**CMW, INC  
138 NORTH KEENELAND DRIVE, SUITE E  
RICHMOND, KENTUCKY 40475**

**CMW PROJECT NO. 02412.01**

**KIA PROJECT NO. WX21015005**

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## ADVERTISEMENT FOR BIDS

Bullock Pen Water District

Separate sealed BIDS for Water Line Extension - Phase 7 - McCoy Fork Water Line will be received by the Owner at the office of Bullock Pen Water District, Crittenden, Kentucky, until 3:00 p.m. EST on Friday, November 7, 2003 and then publicly opened and read aloud.

Construction of base bid shall consist of approximately 13,985 LF of 8" water line, 23 gate valves, 14 fire hydrants, 248 LF of bores with steel encasement, 1 air relief valve, 38 meters with service piping, 255 LF of freebore, and all other necessary appurtenances.

The CONTRACT DOCUMENTS may be examined at the following locations:

CMW, Inc., 138 N Keeneland Drive, Suite E, Richmond, KY  
Bullock Pen Water District, 1 Farrell Drive, Crittenden, KY  
F. W. Dodge Plan Room/AGC Plan Room, 2321 Fortune Drive, Suite 112, Lexington, KY  
Reed Construction Data/ABC Plan Room, 132 Venture Court, Suite 12, Lexington, KY  
Reed Construction Data/ABC Plan Room, 1812 Taylor Avenue, Louisville, KY  
Allied Construction Industries, 1010 Yale Avenue, Cincinnati, OH  
F. W. Dodge Plan Room, Grant Baldwin Building, 655 Eden Park Road, Suite 515, Cincinnati, OH  
45202

Copies of the CONTRACT DOCUMENTS may be obtained from Lynn Imaging, 328 Old East Vine Street, Lexington, KY 40507, phone 859\255-1021 upon the following non-refundable payment of \$40.00 for each set. Make checks payable to CMW, Inc.

If bidding documents are requested to be sent by mail, include an additional \$10.00 for each set to cover cost of handling and postage. This check shall be made payable to Lynn Imaging.

The Owner reserves the right to waive any informalities or to reject any or all bids.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information for Bidders.

No bidder may withdraw his bid within 120 days after the actual date of the opening thereof.

Award will be made to the lowest responsive Bidder unless all bids are rejected.

Each bidder will make positive efforts to use small, minority, woman owned and disadvantaged businesses.

---

Date

BULLOCK PEN WATER DISTRICT  
CRITTENDEN, KENTUCKY

CMW, INC.  
138 NORTH KEENELAND DRIVE  
SUITE E  
RICHMOND, KENTUCKY

**SECTION 00100 - INFORMATION FOR BIDDERS**

BIDS will be received by Bullock Pen Water District, (herein called the "OWNER") at the office of the Bullock Pen Water District, 1 Farrell Drive, Crittenden, Kentucky, until 3:00 p.m. EST on Friday, November 7, 2003 and then publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to Bullock Pen Water District, 1 Farrell Drive, Crittenden, Kentucky 41311. Each sealed envelope containing a BID must be plainly marked on the outside as BID for Water Main Extension, Phase 7 – McCoy Fork Water Line) and the envelope should bear on the outside the name of the BIDDER, his address, his license number, if applicable, and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at 1 Farrell Drive, Crittenden, KY 41030.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one copy of the BID form is required.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 120 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve the contractor from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID bond payable to the OWNER for five percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the Agreement is executed the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

A performance BOND and a payment BOND each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the Property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable performance BOND, payment BOND and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER AND CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right

to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

Award will be made to the lowest responsive BIDDER unless all bids are rejected.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

The ENGINEER IS CMW, Inc. The ENGINEER'S address is P. O. Box 831, 138 N Keeneland Drive, Suite E, Richmond, KY 40475.

END SECTION

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_

\_\_\_\_\_ as Principal, and

\_\_\_\_\_ as Surety, are hereby

held and firmly bound unto \_\_\_\_\_ as OWNER

in the penal sum of \_\_\_\_\_

for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_

The Condition of the above obligation is such that whereas the Principal has submitted to \_\_\_\_\_

\_\_\_\_\_ a certain BID,

attached hereto and hereby made a part hereof to enter into a contract in writing, for the

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal (L.S.)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

**IMPORTANT**—Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

**BID**

**WATER MAIN EXTENSION - PHASE 7  
McCOY FORK WATER LINE  
BULLOCK PEN WATER DISTRICT**

Proposal of \_\_\_\_\_ (hereinafter called "BIDDER"), a corporation organized and existing under the laws of the State of \_\_\_\_\_ doing business as \_\_\_\_\_\*.

To the Bullock Pen Water District (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of Water Main Extension - Phase 7 – McCoy Fork Water Line in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, the BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the project within 75 consecutive calendar days. BIDDER further agrees to pay as liquidated damages, the sum of \$300 for each consecutive calendar day thereafter as hereinafter provided in Section 15 of the General Conditions.

\* Insert "a corporation", "a partnership", or "an individual" as applicable.

BIDDER acknowledges receipt of the following ADDENDUM:

No. \_\_\_\_\_ Dated \_\_\_\_\_ No. \_\_\_\_\_ Dated \_\_\_\_\_  
 No. \_\_\_\_\_ Dated \_\_\_\_\_ No. \_\_\_\_\_ Dated \_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices:

- NOTE: (1) BIDS shall include sales tax and all other applicable taxes and fees.
- (2) Breakdown of work is for general information. Any work shown on Drawings and/or specified but not listed below shall be included in total base bid. Cost of items of work not specifically described below may be added to related bid item(s) at bidder's discretion.

**BID SCHEDULE**

Part I. Base Bid

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1.	8" PVC Water Main, Class 200	13,846	LF	\$	\$
2.	8" MJ Gate Valve, Complete w/ Box and Cover	23	EA	\$	\$
3.	Air Relief Valve, Complete w/ Box and Cover	1	EA	\$	\$
4.	Fire Hydrant, Complete w/ Gate Valve	14	EA	\$	\$
5.	Jack and Bore w/ 12" Steel Encasement Pipe	248	LF	\$	\$
6.	Open Cut w/ 12" Steel Encasement Pipe	20	LF	\$	\$
7.	Freebore for 8" Water Main	385	LF	\$	\$

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
8.	Concrete Encasement	5	CY	\$	\$
9.	Extra Crushed Stone Bedding	45	TONS	\$	\$
10.	5/8" x 3/4" Meter Unit w/out PRV	38	EA	\$	\$
11.	3/4" PE Service Line	475	LF	\$	\$
12.	1" PE Service Line	1,125	LF	\$	\$
13.	1" PE Service Line, Jacked under Roadway	995	LF	\$	\$

Total Part I: Base Bid: \$ \_\_\_\_\_ (USE FIGURES)

\_\_\_\_\_  
 (USE WORDS)

TOTAL AMOUNTS SHALL BE SHOWN IN BOTH WORDS AND FIGURES. IN CASE OF DISCREPANCIES, THE AMOUNT AS WRITTEN IN WORDS SHALL GOVERN.

The above price shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the General Conditions.

Award of the Contract will be based on the lowest and best Total Base Bid.

The Bidder agrees that the Owner reserves the right to delete the whole or any part of the project from the Contract.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of one hundred twenty (120) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within ten (10) days and deliver a surety bond or bonds as required by Article 22 of the General Conditions.

Respectfully submitted:

\_\_\_\_\_  
(Name of Contracting Firm)

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

DATE: \_\_\_\_\_

License No. (if applicable) \_\_\_\_\_

Seal (If Bid by Corporation)

Attest: \_\_\_\_\_

END BID FORM

**AUTHENTICATION OF BID AND AFFIDAVIT OF NON-COLLUSION AND  
NON-CONFLICT OF INTEREST**

I hereby swear (or affirm) under the penalty for false swearing as provided by KRS 432.170:

1. That I am the bidder (if the bidder is an individual ), a partner in the bidder (if the bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the bidder is a corporation);
2. That the attached bid has been arrived at by the bidder independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment, or services described in the Invitation to Bid, designed to limit independent bidding or competition;
3. That the contents of the bid has not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid and will not be communicated to any such person prior to the official opening of the bid;
4. That the bidder is legally entitled to enter into the contracts with the Bullock Pen Water District and is not in violation of any prohibited conflicts of interest;
5. (Applicable to corporations only) That as a foreign corporation we are registered with the Secretary of State, Commonwealth of Kentucky, and authorized to do business in the State of \_\_\_\_\_ or, that as a domestic corporation we are in good standing with the Secretary of State, Commonwealth of Kentucky \_\_\_\_\_. (Check the statement applicable.)
6. That this offer is for 120 calendar days from the date this bid is opened. In submitting the above, it is expressly agreed that, upon proper acceptance by the Bullock Pen Water District of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
7. That I have fully informed myself regarding the accuracy of the statements made in this Affidavit.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

Signed by \_\_\_\_\_  
Title \_\_\_\_\_  
Firm \_\_\_\_\_ Telephone No. \_\_\_\_\_  
Address \_\_\_\_\_ Area Code \_\_\_\_\_  
Date \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

END SECTION

**AGREEMENT**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2003, by and between Bullock Pen Water District hereinafter called "OWNER" and \_\_\_\_\_, doing business as a corporation, hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of Water Main Extension, Phase 7, McCoy Fork.
2. The CONTRACTOR will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the date of the NOTICE TO PROCEED and will complete the water line within 75 consecutive calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ \_\_\_\_\_ or as shown in the BID schedule.
5. The term "CONTRACT DOCUMENTS" means and includes the following:
  - A. Advertisement

- B. Information to Bidders
- C. Bid
- D. Bid Bond
- E. Agreement
- F. General Conditions
- G. Payment Bond
- H. General Conditions
- I. Notice to Proceed
- J. Change Order
- K. Drawings prepared by CMW, Inc. numbered 1.1 through 2.3 dated April, 2002.
- L. SPECIFICATIONS prepared or issued by CMW, Inc. and dated February, 2003.
- M. ADDENDA:
  - No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.
  - \_\_\_\_\_ , dated \_\_\_\_\_, 20\_\_\_\_.
  - \_\_\_\_\_ , dated \_\_\_\_\_, 20\_\_\_\_.
  - \_\_\_\_\_ , dated \_\_\_\_\_, 20\_\_\_\_.

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized official, this Agreement in 6 copies each of which shall be deemed an original on the date first above written.

(SEAL)  
ATTEST:

NAME Paula Massie  
(Please Type)  
TITLE Office Manager

OWNER:  
BULLOCK PEN WATER DISTRICT  
BY Bobby Burgess  
(Please Type)  
TITLE Chairman

(SEAL)  
ATTEST:

NAME \_\_\_\_\_  
(Please Type)  
TITLE \_\_\_\_\_

CONTRACTOR:  
BY \_\_\_\_\_  
NAME \_\_\_\_\_  
(Please Type)  
ADDRESS \_\_\_\_\_

EMPLOYER IDENTIFICATION NUMBER:  
\_\_\_\_\_

END SECTION

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a \_\_\_\_\_, hereinafter called Principal,  
(Corporation, Partnership or Individual)

and

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars, \$(\_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_ 19 \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_  
(Address)

ATTEST:

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Principal

By \_\_\_\_\_(s)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Surety

By \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
(Address)

NOTE: Date of BOND must not be prior to date of Contract.  
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the PROJECT is located.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_ hereinafter called Principal, and  
(Corporation, Partnership, or Individual)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_  
(Name of owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER, in the penal sum of \_\_\_\_\_

\_\_\_\_\_ Dollars. \$(\_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_

ATTEST:

\_\_\_\_\_  
(Principal) Secretary  
(SEAL)  
\_\_\_\_\_  
(Witness as to Principal)  
\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Principal  
By \_\_\_\_\_ (S)  
\_\_\_\_\_  
(Address)  
\_\_\_\_\_  
Surety

ATTEST:

\_\_\_\_\_  
(Surety) Secretary  
(SEAL)  
\_\_\_\_\_  
Witness as to Surety  
\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
Attorney-in-Fact  
\_\_\_\_\_  
(Address)

NOTE: Date of BOND must not be prior to date of Contract.  
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

## GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in the Contract Price
15. Time for Completion and Liquidated Damages
16. Correction of Work

### 1. DEFINITIONS

- 1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:
- 1.2 **ADDENDA** – Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications or corrections.
- 1.3 **BID** – The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.4 **BIDDER** – Any person, firm or corporation submitting a BID for the WORK.
- 1.5 **BONDS** – Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.
- 1.6 **CHANGE ORDER** – A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.
- 1.7 **CONTRACT DOCUMENTS** – The contract, including Advertisement For Bids, Information for Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.
- 1.8 **CONTRACT PRICE** – The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.9 **CONTRACT TIME** – The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.
- 1.10 **CONTRACTOR** – The person, firm or corporation with whom the OWNER has executed the Agreement.
- 1.11 **DRAWINGS** – The part of the CONTRACT

DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been

17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
19. Payments to Contractor
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights of Way
29. Guaranty
30. Arbitration
31. Taxes

prepared or approved by the ENGINEER.

1.12 **ENGINEER** – The person, firm or corporation named as such in the CONTRACT DOCUMENTS.

1.13 **FIELD ORDER** – A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.

1.14 **NOTICE OF AWARD** – The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.

1.15 **NOTICE TO PROCEED** – Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.

1.16 **OWNER** – A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the WORK is to be performed.

1.17 **PROJECT** – The undertaking to be performed as provided in the CONTRACT DOCUMENTS.

1.18 **RESIDENT PROJECT REPRESENTATIVE** – The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.

1.19 **SHOP DRAWINGS** – All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.

1.20 **SPECIFICATIONS** – A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 **SUBCONTRACTOR** – An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the work at the site.

1.22 SUBSTANTIAL COMPLETION – That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS – Modifications to General Conditions required by a Federal agency for participation in the PROJECT and approved by the agency in writing prior to inclusion in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.

1.24 SUPPLIER – Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

1.25 WORK – All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

1.26 WRITTEN NOTICE—Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

## 2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

2.2 The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

## 3. SCHEDULES, REPORTS AND RECORDS

3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.

3.2 Prior to the first partial payment estimate the CONTRACTOR shall submit construction progress schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part and, as applicable:

3.2.1 The dates at which special detail drawings will be required; and

3.2.2 Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn

during the course of the WORK.

## 4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

4.2 In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.

4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

## 5. SHOP DRAWINGS

5.1 The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

5.3 Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

## 6. MATERIALS, SERVICES AND FACILITIES

6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be

incorporated in the WORK shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## 7. INSPECTION AND TESTING

7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS.

7.2 The OWNER shall provide all inspection and testing services not required by the CONTRACT DOCUMENTS.

7.3 The CONTRACTOR shall provide at his expense the testing and inspection services required by the CONTRACT DOCUMENTS.

7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

7.5 Inspections, tests or approvals by the engineer or others shall not relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

7.6 The ENGINEER and his representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.

7.7 If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.

7.8 If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials,

tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

## 8. SUBSTITUTIONS

8.1 Whenever a material, article or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

## 9. PATENTS

9.1 The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

## 10. SURVEYS, PERMITS, REGULATIONS

10.1 The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of

willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

#### 11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

#### 12. SUPERVISION BY CONTRACTOR

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

#### 13. CHANGES IN THE WORK

13.1 The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

#### 14. CHANGES IN CONTRACT PRICE

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved.
- (b) An agreed lump sum.
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.

#### 15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is

expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

15.3 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

15.4.1 To any preference, priority or allocation order duly issued by the OWNER.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

## 16. CORRECTION OF WORK

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

## 17. SUBSURFACE CONDITIONS

17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS; or

17.1.2 Unknown physical conditions at the site.

of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

17.2 The OWNER shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE; provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

## 18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

18.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery, thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

18.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the

CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the Contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

## 19. PAYMENTS TO CONTRACTOR

19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER's title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present

the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate. The OWNER shall retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the CONTRACT DOCUMENTS. The OWNER at any time, however, after fifty (50) percent of the WORK has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five (5%) percent on the current and remaining estimates. When the WORK is substantially complete (operational or beneficial occupancy), the retained amount may be further reduced below five (5) percent to only that amount necessary to assure completion. On completion and acceptance of a part of the WORK on which the price is stated separately in the CONTRACT DOCUMENTS, payment may be made in full, including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.

19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.

19.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

19.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.

19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK: The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum

of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance, with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

19.7 If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

## 20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BOND and Payment BONDS.

## 21. INSURANCE

21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.2 Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified;

21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any SUBCONTRACTOR under him, or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR under him. Insurance shall be written with a limit of liability of not less than \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$200,000 aggregate for any such damage sustained by two or more persons in any one accident.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.

21.4 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any work is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to

be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, the ENGINEER, and the OWNER.

## 22. CONTRACT SECURITY

22.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal BONDS, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

## 23. ASSIGNMENTS

23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

## 24. INDEMNIFICATION

24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 In any and all claims against the OWNER or

the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

## 25. SEPARATE CONTRACTS

25.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

25.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefor as provided in Sections 14 and 15.

## 26. SUBCONTRACTING

26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(S), in excess of fifty (50%) percent of the CONTRACT PRICE, without prior written approval of the OWNER.

26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or

COMMISSIONER'S CURRENT REVISION  
KENTUCKY PREVAILING WAGE DETERMINATION  
LOCALITY NO. 13

**BOONE COUNTY**

Determination No. CR-3-13

Date of Determination: July 15, 2003

This schedule of the prevailing rate of wages for Boone County has been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR-3-13

Apprentices shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request to any interested person.

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) per day, and/or in excess of forty (40) per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one calendar day, but not more than ten (10) hours worked in any one calendar day, if such written agreement is prior to the over eight (8) hours in a calendar day actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked.

Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

NOTE: The type of construction shall be determined by applying the following definitions:

BUILDING CONSTRUCTION

Building construction is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. It includes all construction of such structures, the installation of utilities and the installation of equipment, both above and below grade level, as well as incidental grading, utilities and paving.

HIGHWAY CONSTRUCTION

Highway construction includes the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects not incidental to building or heavy construction. It includes all incidental construction in conjunction with the highway construction project.

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July 15, 2003  
CR-3-13

HEAVY CONSTRUCTION

Heavy projects are those projects that are not properly classified as either "building" or "highway". For example, dredging projects, water and sewer line projects, dams, flood control projects, sewage treatment plants and facilities, and water treatment plants and facilities are considered heavy.

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Guy R. Patterson, Jr., Director  
Employment Standards,  
Apprenticeship & Training  
Kentucky Labor Cabinet

&

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Joe Norsworthy, Secretary  
Kentucky Labor Cabinet  
Frankfort, Kentucky 40601

CLASSIFICATIONS RATE AND FRINGE BENEFITS

ASBESTOS/INSULATION WORKERS:

Asbestos/Insulation Workers: (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems):

BASE RATE \$22.42  
 FRINGE BENEFITS 8.45

Hazardous Material Handlers: (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems):

BASE RATE \$17.50  
 FRINGE BENEFITS 6.25

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 BOILERMAKERS:

BASE RATE \$27.15  
 FRINGE BENEFITS 12.70

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 BRICKLAYERS:

Bricklayers, Caulkers, Cleaners, Pointers & Stone Masons:

BASE RATE \$22.96  
 FRINGE BENEFITS 7.39

Refractory: BUILDING

BASE RATE \$23.48  
 FRINGE BENEFITS 7.39

Marble Setters, Terrazzo Workers, & Tile Setters:  
 BUILDING

BASE RATE \$24.92  
 FRINGE BENEFITS 6.84

MARBLE, TERRAZZO & TILE FINISHERS:

Finishers: BUILDING

BASE RATE \$20.48  
 FRINGE BENEFITS 6.84

Marble Sanders, Polishers, Waxers, & Sawyers:  
 BUILDING

BASE RATE \$20.55  
 FRINGE BENEFITS 6.84

CLASSIFICATIONS RATE AND FRINGE BENEFITS  
 BRICKLAYERS/MARBLE, TERRAZZO & TILE FINISHERS: (Continued)

Terrazzo Base Grinders (While operating base grinding machine):

	BUILDING	BASE RATE	\$20.90
		FRINGE BENEFITS	6.84

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CARPENTERS:

Carpenters & Piledrivermen (Does not include Walls & Ceiling Work):

	BUILDING	BASE RATE	\$19.22
		FRINGE BENEFITS	4.77
	HEAVY & HIGHWAY	BASE RATE	\$22.42
		FRINGE BENEFITS	4.73

Carpenters & Lathers (Walls & Ceiling Work Only):

	BUILDING	BASE RATE	\$18.99
		FRINGE BENEFITS	4.98

Divers:

	HEAVY & HIGHWAY	BASE RATE	\$33.63
		FRINGE BENEFITS	4.73

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CEMENT MASONS:

	BUILDING	BASE RATE	\$20.05
		FRINGE BENEFITS	6.05
	HEAVY & HIGHWAY	BASE RATE	\$21.03
		FRINGE BENEFITS	6.00

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ELECTRICIANS:

Electricians:

		BASE RATE	\$23.95
		FRINGE BENEFITS	7.38

Electrical Sign & Luminous Building Installer:

	BUILDING	BASE RATE	\$12.88
		FRINGE BENEFITS	1.03

ELECTRICIAN/LINE CONSTRUCTION:

Linemen:

	BUILDING	BASE RATE	\$24.10
		FRINGE BENEFITS	6.66

Equipment Operator:

	BUILDING	BASE RATE	\$21.69
		FRINGE BENEFITS	6.21

CLASSIFICATIONS RATE AND FRINGE BENEFITS  
ELECTRICIAN/LINE CONSTRUCTION: (Continued)

Groundmen:	BUILDING	BASE RATE	\$15.67
		FRINGE BENEFITS	5.10

ELECTRICIAN/SOUND COMMUNICATION:

Installer:		BASE RATE	\$18.00
		FRINGE BENEFITS	3.475

Cable Puller:		BASE RATE	\$9.00
		FRINGE BENEFITS	2.64

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ELEVATOR MECHANICS:		BASE RATE	\$26.255
		FRINGE BENEFITS	7.455

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GLAZIERS:		BASE RATE	\$21.00
		FRINGE BENEFITS	4.95

IRONWORKERS:

Structural, & Ornamental		BASE RATE	\$23.45
		FRINGE BENEFITS	10.88

Fence Erector		BASE RATE	\$21.11
		FRINGE BENEFITS	10.88

Reinforcing:		BASE RATE	\$22.96
		FRINGE BENEFITS	10.47

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LABORERS/BUILDING:

Building & Common Laborer, Cement Mason Tender, Hand Operated Mechanical Mule, Mechanical Sweeper, Signal Person, Asbestos Removal, & Tunnel Laborer:	BUILDING	BASE RATE	\$19.00
		FRINGE BENEFITS	4.65

CLASSIFICATIONS RATE AND FRINGE BENEFITS  
 LABORERS/BUILDING: (Continued)

Skid Steer, Burning Torch Operator, Jackhammer, Air Spade, Chipping Hammer, Mechanical & Air Tamper Operator, Mechanical Concrete Buggy, Power Operated Mechanical Mule, Concrete Pump Hose Man, Vibrator Man, CERCLA Trained Hazardous Material Removal – Levels A, B, C:

BUILDING	BASE RATE	\$19.14
	FRINGE BENEFITS	4.65
Gunnite Nozzle Operator: BUILDING	BASE RATE	\$19.71
	FRINGE BENEFITS	4.65
Mason Tender (excluding cement): BUILDING	BASE RATE	\$21.65
	FRINGE BENEFITS	4.65
Plasterer Tender: BUILDING	BASE RATE	\$18.30
	FRINGE BENEFITS	3.90
Plasterer Mixer Pump Operator: BUILDING	BASE RATE	\$18.45
	FRINGE BENEFITS	3.90

LABORERS/HEAVY HIGHWAY

GROUP 1:

Asphalt Laborer, Carpenter Tender, Concrete Curing applicator, Dump Man (Batch Truck), Guardrail and Fence Installer, Joint Setter, Laborer (Construction), Landscape Laborer, Mesh Handlers & Placer, Right-of-way Laborer, Riprap Laborer & Grouter, Scaffold Erector, Seal Coating, Surface Treatment or Road Mix Laborer, Sign Installer, Slurry Seal, Utility Man, Bridge Man, Handyman, waterproofing Laborer, Flagperson, Hazardous Waste (Level D), Diver Tender, Zone Person & Traffic Control:

HEAVY & HIGHWAY	BASE RATE	\$22.17
	FRINGE BENEFITS	4.45

GROUP 2:

Skid Steer, Asphalt Raker, Concrete Puddler, Kettle Man (Pipeline), Machine Driven Tools (Gas, Electric, Air), Mason Tender, Brick Paver, Mortar Mixer, Power Buggy or Power Wheelbarrow, Sheeting & Shoring Man, Surface Grinder Man, Plastic Fusing Machine Operator, Pug Mill Operator, & Vacuum Devices (wet or dry), Rodding Machine Operator, Diver, Screwman or Paver, Screed Person, Water Blast, Hand Held Wand, Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (Level C), Air Track and Wagon Drill, Bottom Person, Cofferdam (below 25 ft. deep), Concrete Saw Person, Cutting with Burning Torch, Form Setter, Hand Spiker (Railroad), Pipelayer, tunnel Laborer (without air) & Caisson, Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning), Sandblaster Nozzle Person, & Hazardous Waste (Level B):

HEAVY & HIGHWAY	BASE RATE	\$22.34
	FRINGE BENEFITS	4.45

CLASSIFICATIONS RATE AND FRINGE BENEFITS  
 LABORERS/HEAVY HIGHWAY: (Continued)

GROUP 3:

Blaster, Mucker, Powder Person, Top Lander, Wrencher (Mechanical Joints & Utility Pipeline), Yarnier, Hazardous Waste (Level A), Concrete Specialist, Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium), Curb Setter & Cutter, Grade Checker, Utility Pipeline Tapper, Waterline, and Caulker:

HEAVY & HIGHWAY	BASE RATE	\$22.67
	FRINGE BENEFITS	4.45

GROUP 4:

Miner (With Air-pressurized - \$1.00 premium), & Gunnite Nozzle Person:

HEAVY & HIGHWAY	BASE RATE	\$23.12
	FRINGE BENEFITS	4.45

**Signal Person will receive the rate equal to the rate paid the laborer classification for which he or she is signaling**

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 MILLWRIGHTS:

	BASE RATE	\$21.90
	FRINGE BENEFITS	7.92

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OPERATING ENGINEERS/BUILDING:

Boom & Jib 250' over:	BUILDING	BASE RATE	\$27.14
		FRINGE BENEFITS	7.10

Boom & Jib Over 180' through 249:	BUILDING	BASE RATE	\$26.89
		FRINGE BENEFITS	7.10

Boom & Jib 150' through 180', & Master Mechanic:	BUILDING	BASE RATE	\$26.64
		FRINGE BENEFITS	7.10

Barrier Moving Machine, Boiler or Compressor Mounted on Crane (Piggy-Back Operation), Boom Truck, Cableway, Cherry Picker, Combination Concrete Mixer & Tower, Concrete Pump with Booms, Crane, Derrick, Dragline, Dredge (Dipper, Clam or Suction) 3 Man Crew, Elevating Grader or Euclid Loader, Floating Equipment, Forklift (rough terrain with winch/hoist), Gradeall, Helicopter Operator & Helicopter Winch Operator (Hoisting Builders Materials), Hoe, Hoist (Two or More Drums), Horizontal Directional Drill, Hydraulic Gantry (Lift System), Laser Finishing Machine, Laser Screed and Like Equipment, Lift Slab or Panel Jack, Locomotive, Maintenance Engineer (Mechanic), Mixer, Paving (Multiple Drum), Mobile Concrete Pump with Boom, Panelboard, Pile Driver, Power Shovel, Prentice

CLASSIFICATIONS RATE AND FRINGE BENEFITS  
OPERATING ENGINEERS/BUILDING: (Continued)

Loader, Rail Tamper with automatic lifting & align device, Rotary Drill used on Caisson Work for Foundation & Substructure Work, Side Boom, Slip Form Paver, Straddle Carrier, Trench Machine (Over 24" Wide), & Tug Boat:

BUILDING	BASE RATE	\$26.39
	FRINGE BENEFITS	7.10

Asphalt Paver, Bobcat-type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs., Bulldozer, C.M.I. Type Equipment, Concrete Grinder/Planer, Endloader, Hydro Milling Machine, Kolman Type Loader (Dirt Loading), Lead Greaseman, Mucking Machine, Pettibone-Fail Equipment, Power Grader, Power Scoop, Power Scraper, Push Cat, & Vermeer Type Concrete Saw:

BUILDING	BASE RATE	\$26.27
	FRINGE BENEFITS	7.10

A-Frame, Air Compressor (Pressurizing Shafts or Tunnels), Asphalt Roller, Bobcat-type and/or Skid steer Loader with or without Attachments, Concrete Pump without Booms & with 5" System, Highway Drillers with Integral Power, Hoist (One Drum), Boiler (15 lbs. Pressure & Over), Forklift (except Masonry), House Elevator (except those automatic call button controlled), Man Lift, Mud Jack, Pressure Grouting, Pump (Installing or Operating Well Points or other Type of Dewatering Systems), Pump (4" and over Discharge), submersible Pump (4" and over Discharge), Switch & Tire Tamper w/o lifting & aligning device, Trench Machine (24" & under), Utility, Railroad Tie Inserter/Remover, & Rotovator (Lime-Soil Stabilizer):

BUILDING	BASE RATE	\$25.23
	FRINGE BENEFITS	7.10

Compressor, Concrete Mixer (Capacity more than one bag), Concrete Mixer (one bag capacity, side loader), Conveyor, Generator, Gunnite Machine, Pavement Breaker (Hydraulic or Cable), Post Driver, Post Hole Digger, Road Widening Trencher, Roller (except Asphalt), Ballast Relocator, Backfiller & Tamper, Bar & Joint Installing Machine, Batcher Plant, Bullfloat, Burlap & Curing Machine, Clefplane, Concrete Spreader, Crusher, Deckhand, Drum Fireperson (In Asphalt Plant), Farm-type Tractor (Pulling Attachments), Finishing Machine, Form Trencher, Hydro Seeder, Pressure Pump (over 1/2" discharge), Self-Propelled Sub-Grader, Tire Repairman, Tractor (Pulling Sheep Foot Roller or Grader), Vibratory Compactor (with Integral Power), Vac/All, Concrete Pump without Booms with 4" or Smaller System, Self-Propelled Power Spreader, & Shotcrete Machine:

BUILDING	BASE RATE	\$24.05
	FRINGE BENEFITS	7.10

CLASSIFICATIONS

RATE AND FRINGE BENEFITS

OPERATING ENGINEERS/BUILDING: (Continued)

Allen Screed Paver (concrete), Boiler (Less than 15 lbs. Pressure), Directional Drill "Locator", Masonry Fork Lift, Inboard & Outboard Motor Boat Launch, Light Plant, Oiler, Power Driven Heater (Oil Fired), Power Scrubber, Power Sweeper, Pump (Under 4" discharge), Signal Person, & Submersible Pump (Under 4" discharge):

BUILDING	BASE RATE	\$18.59
	FRINGE BENEFITS	7.10

OPERATING ENGINEERS/HEAVY HIGHWAY

Master Mechanic:

HEAVY & HIGHWAY	BASE RATE	\$26.64
	FRINGE BENEFITS	7.10

Air Compressor on Steel Erection, Barrier Moving Machine, Boiler Operator on Compressor or Generator when mounted on a Rig, Cableway, Combination Concrete Mixer & Tower, Concrete Plant (over 4 yd. Cap.), Concrete Pump, Crane (Including Boom Truck, Cherry Picker), Derrick, Dragline, Dredge (Dipper, Clam or Suction), Elevating Grader or Euclid Loader, Floating Equipment, Gradeall, Helicopter Crew (Operator-Hoist or Winch), Hoe, Hoisting Engine on Shaft or Tunnel Work, Horizontal Directional Drill (over 500,000 ft. lbs. Thrust), Industrial-Type Tractor, Jet Engine Dryer (D8 or D9) Diesel, Tractor, Locomotive (Standard Gauge), Maintenance Operator Class A, Mixer, Paving (Single or Double Drum), Mucking Machine, Multiple Scraper, Piledriving Machine, Power Shovel, Prentice Loader, Quad 9 (Double Pusher), Refrigerating Machine (Freezer Operation), Side-Boom, Slip-Form Paver, Tower Derrick, Concrete Pump, Tug Boat, Tunnel Machine and/or Mining Machine, Wheel Excavator, Hydraulic Gantry (Lifting System), Rail Tamper (w/Auto Lifting & alignment Device), Rough Terrain Fork Lift with Winch/Hoist:

HEAVY & HIGHWAY	BASE RATE	\$26.39
	FRINGE BENEFITS	7.10

Asphalt Paver, Automatic Subgrader Machine, Self-Propelled (CMI Type), Bobcat Type and/or Skid Steer Loader with Hoe attachment Greater than 7,000 lbs., Boring Machine More than 48", Bulldozer, Endloader, Kolman-type Loader (production type Dirt), Lead Greaseman, Power Grader, Power Scraper, Push Cat, Trench Machine (24" wide & under), Concrete Grinder/Planer, Pettibone-Rail Equipment, Vermeer type Concrete Saw, Hydro Milling Machine, Lighting & Traffic Signal Installation Equipment, Material Transfer Equipment (shuttle buggy) Asphalt:

HEAVY & HIGHWAY	BASE RATE	\$26.27
	FRINGE BENEFITS	7.10

CLASSIFICATIONS RATE AND FRINGE BENEFITS  
OPERATING ENGINEERS/HEAVY HIGHWAY: (Continued)

A-Frame, air Compressor on Tunnel Work (low pressure), Asphalt Plant Engineer, Locomotive (narrow gauge), Mixer, Concrete (more than one bag cap.), Mixer, one bag cap (Side Loader), Power Boiler, 15 lb Pressure & Over, Pump Operator installing & operating Well Points, Pump (4" & over discharge), Roller - Asphalt, Utility Operator (Small equipment), Welding Machine, Bobcat Type and/or Skid Steer Loader, Switch and Tie Tamper (w/o Lifting & Aligning Device), Highway Drills, Railroad Tie Inserter/Remover, Rotovator (Lime-Soil Stabilizer):

	HEAVY & HIGHWAY	BASE RATE	\$25.23
		FRINGE BENEFITS	7.10

Backfiller, Bar & Joint Installing Machine, Batch Plant, Boring Machine, Operator (48" or less), Bull Floats, Burlap & Curing Machine, concrete Plant (capacity 4 yd. & under), Concrete Saw (Multiple), Conveyor (Highway), Crusher, Deckhand, Farm-type Tractor with attachments (highway, except Masonry), Finishing Machine, Fireperson, Floating Equipment, Fork Lift (highway), Form Trencher, Hydro Hammer, Hydro Seeder, Pavement Breaker, Plant Mixer, Post Driver, Post Hole Digger (Power Auger), Road Widening Trencher, Roller (Brick, Grade & Macadam), Self-Propelled Power Spreader, Self-Propelled Subgrader, Steam Fireperson, Tractor (Pulling Sheepfoot, Roller or Grader), Power Brush Burner, Power Form Handling Equipment, Vibratory Compactor with Integral Power, & Ballast Re-Locator:

	HEAVY & HIGHWAY	BASE RATE	\$24.05
		FRINGE BENEFITS	7.10

Compressor (Portable, Sewer, Heavy & Highway), Drum Fireperson (In Asphalt Plant), Generator, Masonry Fork Lift, Inboard-Outboard Motor Boat - Launch, Power Scrubber, Power Sweeper, Oil Heater (Asphalt Plant), Oiler, Power Driven Heater, Pump (under 4" discharge), Tire Repairperson, VAC/ALLS & Signalperson:

	HEAVY & HIGHWAY	BASE RATE	\$18.59
		FRINGE BENEFITS	7.10

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 PAINTERS:

Brush, Roller, Steam Cleaning, Tanks, Taping & Washing:

	BUILDING	BASE RATE	\$21.30
		FRINGE BENEFITS	5.10

Paper Hanging & Wall Covering: BUILDING

	BUILDING	BASE RATE	\$21.55
		FRINGE BENEFITS	5.10

<u>CLASSIFICATIONS</u>		<u>RATE AND FRINGE BENEFITS</u>	
<u>PAINTERS: (Continued)</u>			
Spray:	BUILDING	BASE RATE	\$21.80
		FRINGE BENEFITS	5.10
Sandblasting, Waterblasting, & Hopper Tender:	BUILDING	BASE RATE	\$22.05
		FRINGE BENEFITS	5.10
Hazardous Work, Elevated Tanks 40 Feet or Above, High Work, & Lead Abatement Projects:	BUILDING	BASE RATE	\$22.30
		FRINGE BENEFITS	5.10
Sandblasting, Hopper Tender & Waterblasting Under Hazardous Conditions:	BUILDING	BASE RATE	\$23.05
		FRINGE BENEFITS	5.10
Painters/Sign Painter & Erector:	BUILDING	BASE RATE	\$17.57
		FRINGE BENEFITS	4.55
Elevated Tanks:	HEAVY & HIGHWAY	BASE RATE	\$22.30
		FRINGE BENEFITS	5.10
<b>BRIDGES – GUARDRAILS-LIGHTPOLES – STRIPING:</b>			
Bridge/Equipment Tender and/or Containment Builder:	HEAVY & HIGHWAY	BASE RATE	\$18.95
		FRINGE BENEFITS	5.10
Brush & Roller:	HEAVY & HIGHWAY	BASE RATE	\$21.30
		FRINGE BENEFITS	5.10
Spray:	HEAVY & HIGHWAY	BASE RATE	\$21.80
		FRINGE BENEFITS	5.10
Sandblasting & Hopper Tender; Water Blasting:	HEAVY & HIGHWAY	BASE RATE	\$22.30
		FRINGE BENEFITS	5.10



CLASSIFICATIONS RATE AND FRINGE BENEFITS  
TRUCK DRIVERS/BUILDING: (Continued)

Over 3 Tons, Semi-Trailer or Pole Trailer, Dump Tandem Axles, Farm Tractor (When used to pull building material & equipment):

BUILDING	*BASE RATE	\$17.38
	FRINGE BENEFITS	8.04

Concrete Mixer (Hauling on jobsites), & Truck Mechanic:

BUILDING	*BASE RATE	\$17.45
	FRINGE BENEFITS	8.04

Euclids & Other Heavy Moving Equipment, Lowboy, Winch, A-Frame & Monorail Truck (To transport building materials):

BUILDING	*BASE RATE	\$17.55
	FRINGE BENEFITS	8.04

\* Work on Hazardous or Toxic Waste Site - \$4.00 Premium on all of the above

TRUCK DRIVERS/HEAVY HIGHWAY:

Driver:	HEAVY & HIGHWAY	BASE RATE	\$15.85
		FRINGE BENEFITS	4.60

Euclid Wagon, End Dump, Lowboy, Heavy Duty Equipment, Tractor-Trailer Combination, & Drag:	HEAVY & HIGHWAY	BASE RATE	\$16.29
		FRINGE BENEFITS	4.60

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WATER MAIN EXTENSION - PHASE 7

McCOY FORK WATER LINE  
BULLOCK PEN WATER DISTRICT

DIVISION 1 - GENERAL REQUIREMENTS

**SECTION 01010 - SPECIAL CONDITIONS**

1. **RELATED DOCUMENTS**

General Provisions of Contract, General and Supplementary Conditions apply to this section.

2. **DESCRIPTION OF WORK**

A. Provide labor, materials, equipment and services necessary for proper and complete construction of this contract for Bullock Pen Water District.

3. **CONTRACTOR'S QUALIFICATIONS**

At the request of the Owner, each bidder shall submit, in writing, the following information:

A. Name and address of principal owner of contracting company.

B. Net worth statement.

C. A list of all similar work performed within the past five (5) years with name and address of Engineer on each project.

4. **CONTRACTOR'S SUPERINTENDENT**

Contractor shall keep on his work, at all times during its progress, a competent superintendent satisfactory to Engineer. The Superintendent shall not be changed, except with consent of Engineer, unless he proves to be unsatisfactory to Contractor and ceases to be in his employ. Superintendent shall represent Contractor in his absence and all directives given to him shall be binding as if given to Contractor.

5. **INTENT**

A. The intent of these Specifications is to require a high level of quality in materials and workmanship resulting in timely completion of all Work in an orderly sequence and manner without inconvenience to the Owner, adjacent property owners or the public.

6. WORK REASONABLY INFERRED BUT NOT PARTICULARLY DELINEATED OR SPECIFIED

A. Contractor shall make a thorough examination of site and study all drawings and specifications and all conditions relating to work, and if any materials or labor are evidently necessary for proper and complete execution of work which are not specifically mentioned and included in drawings and specifications, although reasonably inferred therefrom, unless eliminated by special mention, or if any error or inconsistency appears therein, or in the event of any doubts arising as to the true intent and meaning of drawings or specifications, he shall report it to Engineer at least five (5) days in advance of date set for receiving bids. If appropriate, Engineer will then issue an addendum containing the proper information to all Contractors not later than three (3) days prior to the date set for opening of bids.

B. If Contractor fails to make such report and Engineer is not otherwise advised of such doubtful matters, Contractor is hereby made responsible for furnishing all necessary labor and material reasonably inferred for any additional work involved in correction of apparent errors or inconsistencies and in executing the true intent and meaning of drawings and specifications as interrupted by Engineer, and all such labor and material shall be provided at Contractor's expense and under no circumstances will any such labor and material be allowed as extra cost.

7. QUALITY OF MATERIALS, EQUIPMENT AND WORKMANSHIP

A. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

B. Approval of manufacturer's shop drawings of materials and equipment shall not mean final acceptance, but they shall be subject to inspection and test on delivery and installation. Contractor shall repair, replace, or adjust any materials or equipment found defective or not operating properly due to improper materials, workmanship, and adjustment for a period of one year after completion and acceptance of work.

C. Contractor shall at all times enforce strict discipline and good order among his employees, and shall not employ anyone not skilled in the work assigned to him.

8. TRADE NAMES

Whenever manufactured products, devices or materials are specified under a particular trade name or name of manufacturer, it shall be understood that the specifications are open to other manufacturers whether or not the clause "or approved equal" is included. Other products comparable in type, quality, utility and price are acceptable if approved by Engineer and Owner. The burden of

proof of equality shall rest with Contractor. Owner shall be the sole judge of equality and reserves the right to require the product or material specified by name and furnished at no increase in contract amount.

9. MANUFACTURER'S EQUIPMENT - SHOP DRAWINGS

A. Various items of equipment indicated on Drawings have been indicated schematically only; actual details of each item of equipment shall be verified in shop drawings submitted to Engineer for approval. Data shown on shop drawings shall be complete with respect to dimensions, design criteria, materials of construction, wiring diagrams and component parts, and all details to enable Engineer to review the information as required. At the time of submission, the manufacturer shall in writing, call Engineer's attention to any deviations that shop drawings may have from requirements of Engineer's specifications, or deviation in dimension or equipment weight which might affect structural design or stability. Engineer's approval of shop drawings shall not relieve Contractor from responsibility for compliance with requirements of specifications. Engineer shall not be held responsible for omission or deletion of any components of manufacturer's equipment.

Equipment manufacturer shall be responsible for all components of equipment and shall guarantee that equipment will perform and operate satisfactorily in accordance with requirements set forth in these specifications.

B. Contractor shall furnish six (6) copies of all shop drawings to Engineer for review. No equipment or materials shall be ordered prior to Engineer's written approval of shop drawings.

10. EXISTING UTILITIES

A. Before proceeding with work, Contractor shall verify location of, and possible interference with, existing utilities, arrange for necessary suspension of service, and make arrangements to locate and avoid interference with all utilities.

B. Contractor shall protect all utility lines which are to remain in service.

C. Special precautions shall be taken by Contractor to avoid damage to existing overhead and underground utilities owned and operated by Owner or by public or private utility companies.

D. With particular respect to existing underground utilities, the available information concerning their location has been indicated on Drawings. While it is believed that the locations shown are reasonably correct, neither Engineer nor Owner can guarantee accuracy of adequacy of this information.

E. Before proceeding with work, Contractor shall confer with all public or private companies, agencies, or departments that own and operate utilities in vicinity of construction. The purpose of the conference, or conferences, shall be to notify said companies, agencies, or departments of proposed construction schedule, verify location of, and possible interference with, existing utilities that are indicated on Drawings, arrange for necessary suspension of service, and make arrangements to locate and avoid interference with all utilities (including house connections) that are not indicated on Drawings. Engineer and Owner have no objection to Contractor arranging for said utility companies, agencies, or departments to locate and uncover their own utilities; however, Contractor shall bear entire responsibility for and cost of locating and avoiding or repairing damage to any and all existing utilities.

F. Contractor shall be diligent in his efforts and use every possible means to locate existing utilities. Any claims for unavoidable damage, based on improper or unknown locations, will be thoroughly examined in light of Contractor's efforts to locate said utilities or obstructions prior to beginning construction.

G. For General Utility Information call:

B.U.D. (Before You Dig)  
1-800-752-6007

#### 11. DAMAGE TO EXISTING UTILITIES

- A. Contractor shall be responsible for any and all damage done to existing utilities.
- B. Damage done to existing utilities shall be repaired promptly, to satisfaction of utility company, at no cost to Owner.

#### 12. PUBLIC AND PRIVATE HIGHWAYS AND STREETS

A. Contractor shall ascertain and obey all State and County road load limits in order to prevent damage to pavements resulting from his operation.

B. Public Convenience and Safety

(1) Contractor shall, at all times, conduct work in such manner as to insure minimum obstruction to public travel. Convenience of general public and of residents along and adjacent to area of work shall be provided for in a satisfactory manner, consistent with operation and local conditions and as directed by the Engineer.

(2) Flagmen shall be used at any time that work of any kind is being performed on any portion of roadway pavement, shoulder or ditch.

(3) "Construction" signs shall be placed immediately adjacent to work, in conspicuous positions at such locations as traffic demands. Signs shall conform to requirements of Manual on Uniform Traffic Control Devices (MUTCD) published by U.S. Department of Transportation, Federal Highway Administration, latest edition. The manual is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. At any time that streets are required to be closed, Contractor shall notify law enforcement agencies, fire departments, and parties operating emergency vehicles before streets are closed and again as soon as it is reopened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times.

(4) Trenches shall be backfilled at end of each day's work as directed by Engineer. Trenches left open shall be adequately protected with suitable flashing barricades, in compliance with MUTCD and as approved by Engineer. All trenches are required to be backfilled at end of work week. No trenches shall remain open over a weekend. Contractor shall place and maintain DGA or crush stone on streets and in trenches in construction area when directed by Engineer to maintain roads in safe and traversable condition. Placement of DGA or crush stone and maintenance of traffic in construction area is considered incidental to construction and will not be paid for separately.

(5) At anytime when excavated material is placed on a paved road, the road shall be cleaned at the end of the day with a power broom and at times as directed by the Engineer.

(6) When excavated material is placed or stockpiled on gravel roads, the contractor shall place crushed stone in these areas to the thickness as approved by the Engineer. The road shall have as much or more gravel or crushed stone as prior to construction as determined by Engineer.

### 13. WORK ON PRIVATE PROPERTY

A. In connection with work performed on "private property" (property other than public rights-of-way), Contractor shall confine equipment, storage of materials, and operation of his workmen to limits indicated on plans, or to lands and rights-of-way provided for the project by Owner, and shall take every precaution to avoid damage to private property owners' buildings, grounds and facilities.

B. Fences, hedges, shrubs, etc. within construction limits, shall be carefully removed, preserved, and replaced after construction on the private property is completed. Private property owners' facilities, and grounds, shall be restored to as good or better condition than found, as quickly as possible, at Contractor's expense.

C. Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees that receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.

D. Large trees or other facilities within construction limits that cannot be preserved and replaced shall be removed by Contractor with approval of Engineer, but Owner will assume responsibility for settling with property owner for loss of said trees or facilities. Such trees and facilities, however, may be indicated on Drawings. Contractor shall be solely and entirely responsible for any damage to trees or facilities whether indicated on Drawings or not.

E. Foundations, adjacent to excavations made below bottoms of the foundations, shall be supported by shoring, bracing, and underpinning as required as long as excavations remain open, and Contractor shall be responsible for any damage to foundations.

#### 14. BLASTING

A. All blasting operations shall be conducted in strict accordance with Kentucky Revised Statutes 351.320 to 351.340 and 351.340, effective October 6, 1972, and subsequent revisions, which shall be deemed to be included in these specifications the same as though herein written out in full. Contractor shall also comply with applicable municipal ordinances, Federal safety regulations and Section 9 of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, Inc. All explosives shall be stored in conformity with said ordinances, laws and safety regulations. No blasting shall be done within any other underground utility lines, except with light charges of explosives. Any damage done by blasting is the responsibility of the Contractor and shall be promptly and satisfactorily repaired by him.

B. If directed by Engineer, all shots shall be covered with heavy timber or steel blasting mats to prevent flying material. Unless otherwise specified or directed, delay caps shall be used to reduce earth vibrations and noise.

C. All blasting shall be supervised and performed by qualified personnel.

15. CLEAN-UP

A. Clean-up shall be performed on a daily basis. All debris shall be removed from site regularly. The site shall be kept in a neat condition, ready for subsequent operations.

B. If Contractor fails to perform proper or adequate cleanup behind pipe laying operations, an additional ten (10) percent of retainage will be withheld from payment(s) due Contractor.

16. PRECONSTRUCTION CONFERENCE

A. Following signing of Contract Documents and prior to actual beginning of construction, a Pre-Construction Conference will be held. Contractor, Contractor's Superintendent, and major subcontractors, shall be present to discuss the Construction Schedule, Contractor's Plan of Operation, Engineer's authority, Resident Inspector's authority, procedures for monthly progress reviews and payments, and other relevant questions. Preconstruction conference will be scheduled by Engineer within ten (10) calendar days following date of signing of Agreement.

B. Unless otherwise instructed by Engineer, Contractor shall prepare and submit five (5) copies of his proposed Construction and Payment Schedules for review at Preconstruction Conference.

- (1) Construction Schedule shall be in a line-item/bar chart format showing anticipated starts, durations and completion of all major items, operations or disciplines or work.

17. TEMPORARY TOILETS, UTILITIES, STORAGE, ETC.

A. Contractor shall be responsible for providing suitable temporary toilets for use by all workmen.

B. Contractor shall be responsible for providing suitable sources of potable water for all operations required for completion of work.

C. Contractor shall make arrangements for on-site areas for storage of materials and equipment, etc.

D. Costs for any and all items covered under this paragraph shall be at Contractor's expense.

18. SECURITY

A. Contractor shall be responsible for protection of his materials, equipment and work during period of Contract. Damage done to construction stakes or to material, equipment, or to completed work shall be replaced or repaired to Engineer's satisfaction and at no additional cost to Owner.

B. Contractor shall be responsible for protection of adjacent public and private property affected by work performed under this Contract, and shall make all necessary and appropriate arrangements with adjacent property owners and with Engineer for such protection prior to commencing work. Damage done to adjacent property resulting from Contractor's operations, or loss suffered by owners of adjacent property, shall be repaired or otherwise compensated by Contractor to satisfaction of Engineer and the affected owner of adjacent property at no additional cost to Owner.

19. LAYING OUT WORK

A. Contractor will be responsible for layout of all lines and shall furnish all materials required for layout. Contractor's personnel engaged in layout work shall be capable of performing duties set out herein.

20. MEASUREMENTS

A. Contractor and each subcontractor shall be responsible for verification of all measurements at site before ordering materials or doing work. No extra charge or compensation shall be allowed due to differences between actual dimensions found in the field and dimensions indicated on Bid Form or on Drawings.

B. Contractor shall be prepared to guarantee to each of his subcontractors dimensions which he may require for layout and fitting of his work to surrounding work.

21. RECORD DOCUMENTS

A. Contractor shall maintain in good condition at project site one (1) set of prints of all Contract Drawings, upon which Contractor's Representative will record periodically as required the actual location and conditions of construction, if different than shown or indicated on Drawings. Approval of final payment is contingent in part, upon receipt of record drawings by Engineer.

22. PARTIAL PAYMENT SCHEDULE

A. Partial Payment Estimate forms will be furnished by Engineer at Preconstruction Conference. Contractor shall prepare monthly Payment Request Forms, as described in General Conditions.

B. Contractor shall attend monthly Progress Meetings, scheduled by Engineer, for purpose of reviewing Contractor's Request for Payment and other matters pertaining to performance of work. If directed by Engineer, Contractor shall arrange for his subcontractors to be present at Progress Meetings.

C. Payments Withheld

(1) Engineer may withhold or, on account or subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect Owner from loss on account of:

- a. Defective work not remedied.
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure of the contractor to make payments properly to subcontractors or for material or labor.
- d. A reasonable doubt that the contract can be completed for the balance then unpaid.
- e. Damage to another Contractor.
- f. Performance of work in violation of the terms of the contract.

D. Where work on unit price items is substantially complete but lacks clean-up and/or corrections order by Engineer, amounts shall be deducted from unit prices in payment certificates to amply cover such clean-up and corrections. When the above clean-up and/or corrections are made, payment shall be made for amounts withheld.

23. APPROVALS AND PERMITS

A. Kentucky Highway Department Encroachment Permits have been approved for Highway 1292 (Beaver Road).

B. Owner will obtain a permit from Boone County Fiscal Court for construction within county rights-of-way. Water lines on county road right-of-way shall be compacted to 95% of Standard Proctor. All open pits are to be covered at night. A 48 hour notice shall be made to Boone County Public Works Department prior to work on county road right-of-way.

C. Contractor shall not begin work in road rights-of-way until he is furnished with copy of approved encroachment permit by Engineer.

D. Use of rights-of-way shall be subject to written conditions on permits. Contractor shall comply with all requirements of access documents, for storage of materials, traffic control, restoration, etc.

24. USE OF PREMISES AND REMOVAL OF DEBRIS

Contractor shall, at his own expense:

A. Take every precaution against injuries to persons or damage to property;

B. Store his apparatus, materials, supplies and equipment in such orderly fashion at site of work as will not unduly interfere with progress of his work or work of any other contractors or subcontractors;

C. Place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work;

D. Clean up daily all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of work shall present a neat, orderly and workmanlike appearance.

E. Before final inspection, remove all surplus materials, falsework, temporary structures, including foundations thereof, all debris resulting from his operation, and put the site in a neat, orderly condition;

F. Effect all cutting, fitting or patching of his work required to make same conform to intent of Plans and Specifications and, except with consent of Engineer, no cut or otherwise alter the work of any other Contractor.

25. CHANGE ORDERS

A. Change Orders shall be negotiated between the Engineer and Contractor. No work on Change Order shall proceed until change or has been approved by all parties.

26. FIELD CHANGES

Engineer may issue written "Changes" which interpret Contract Documents without change in contract price or contract time, and Contractor shall carry out such field orders promptly.

27. GENERAL GUARANTY

The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from date of substantial completion. Contractor warrants and guarantees for a period of one (1) year from date of substantial completion of system that completed system is free from all defects due to faulty materials or workmanship and Contractor shall promptly make such corrections as may be necessary by reason of such defects including repairs or damage of other parts of system resulting from such defects. Owner will give notice of observed defects with reasonable promptness. In the event that Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

28. SPECIFICATIONS BY REFERENCE

A. Whenever the term "Standard Specifications" is used, it shall mean "Standard Specifications for Road and Bridge Construction" of the Kentucky Transportation Cabinet, Department of Highways, Edition of 1998. Items described by reference to "Standard Specifications" shall comply with "Standard Specifications" as if they were printed herein.

B. Copies of "Standard Specifications" may be obtained from: Transportation Cabinet, Department of Administration, Division of Management Services, State Office Building, Frankfort, Kentucky 40622.

29. SAFETY STANDARDS

A. Contractor shall be in compliance with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

30. SUBCONTRACTORS

Contractor shall submit names and superintendents of all subcontractors to be used on project prior to any work by the subcontractor. The contractor is responsible for all acts and omissions of its subcontractors.

31. INSPECTION

A. One inspector will be working on this project. If more than one crew is working, trenches must remain open until the inspector approves the work.

B. If inspector is not contacted by contractor concerning no work due to rain or wet weather conditions and comes to job site, no rain day will be allowed for the contract time.

C. If more than one crew is working on project, the starting time for all crews shall be the same.

END SECTION

WATER MAIN EXTENSION - PHASE 7  
BULLOCK PEN WATER DISTRICT  
DIVISION 2 - TECHNICAL SPECIFICATIONS

**SECTION 02235 - SILTATION CONTROL**

1. RELATED DOCUMENTS

General provisions of Contract, General and Supplementary General Conditions, and General Requirements apply to this Section.

2. DESCRIPTION OF WORK

A. Provide labor, material, equipment and services necessary for proper and complete siltation control.

B. This work shall consist of temporary control measures as ordered by Engineer during life of contract to control siltation through use of erosion control methods; and coordinating these measures with permanent erosion control features specified elsewhere in contract to extent practicable to assure effective and continuous erosion control throughout construction and postconstruction period.

C. Intent of this specification is to protect quality of water through prevention, control, and abatement of siltation resulting from construction project.

D. Contractor shall exercise every reasonable precaution at all times to prevent siltation of all streams. He shall conduct and schedule his operations so as to avoid or minimize muddying or siltation of all streams. No partially completed item of work shall be left in a manner that will contribute to erosion during period in which work on item is suspended.

3. QUALITY ASSURANCE

A. Progress Requirements

(1) Both permanent and temporary erosion control measures shall be progressively coordinated with construction operations throughout duration of project.

(2) As areas of erodible earth material are exposed to elements of erosion, every effort should be made to stabilize and protect areas as quickly as possible, and as directed. Upon failure of Contractor to coordinate erosion control measures with construction operations in a manner to effectively control erosion and to prevent water pollution, Engineer may suspend Contractor's operations and withhold monies due Contractor on current estimates until such time that all aspects of work are coordinated in an acceptable manner.

B. Payment

(1) Temporary erosion and pollution control measures which are required which are ordered by Engineer, shall be performed by Contractor at his own expense.

4. CONSTRUCTION

A. Prevention of Pollution

(1) Construction operations shall not be performed in stream channels except in those areas where creek crossings are indicated on Drawings or where necessary for temporary or permanent structure.

(2) Material removed from excavation shall not be deposited in streams, stream channels, other areas subject to flooding, or other locations where it may be washed away by high stream flows or fast runoff.

(3) Fuels, oils, bitumens, calcium chloride, or other harmful materials shall not be placed where they may be carried into a stream or underground waters at any time.

(4) Duration of exposure of uncompleted construction shall be as short as practicable. All backfilled trenches shall be permanently vegetated progressively with construction.

(5) Contractor shall exercise every reasonable effort to prevent grass or brush fires that will expose areas of soil to erosion. Areas exposed to erosion by fire resulting from Contractor's operations shall be seeded and protected at no cost to Owner.

(6) Lands and waters outside limits of construction, shall not be disturbed, except as may be found necessary and as permitted. Before final acceptance of work, all such disturbed areas, including abandoned haul roads, storage areas and plant sites, shall be reshaped to conform to adjacent ground and shall be revegetated by Contractor at his expense.

B. Temporary Control Measures

(1) Engineer may limit surface area of erodible earth material exposed by trenching and backfilling operations, and may direct Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams.

(2) Temporary pollution control measures shall be coordinated with permanent erosion control features to extent deemed practicable by Engineer to assure effective and continuous erosion control throughout construction and post-construction periods.

(3) Temporary erosion control measures shall be used at any time during life of project when directed to prevent soil erosion and pollution of streams.

(4) Erosion control features installed by Contractor shall be acceptably maintained by him.

5. CLEAN-UP

A. At completion of project, and when approved by Engineer, all materials (straw bales, silt fences, etc.) shall be removed from the site and properly disposed of.

END SECTION

**SECTION 02510 - WATER MAINS**

1. **RELATED DOCUMENTS**

General Provisions of Contract, General, Supplemental and Special Conditions, and General Requirements apply to this Section.

2. **DESCRIPTION OF WORK**

Provide labor, material, equipment and services necessary for proper and complete installation of water pipe, valves and valve boxes, fire hydrants, air releases, meters, road bores, creek crossings and miscellaneous appurtenances.

3. **MATERIALS**

A. Polyvinyl Chloride Pipe (PVC)

(1) Standard Polyvinyl Chloride Pipe

a. Polyvinyl Chloride Pipe shall conform to ASTM Specification D-2241, latest revision. Pipe shall be pressure rated Class 200 (SDR 21) and Class 250 (SDR 17). Pipe material shall conform to latest revisions of ASTM D-1784 (PVC pipe compounds), ASTM D-2241 (PVC plastic pipe, SDR), and ASTM D-2672 (Bell-End PVC pipe).

b. Joints for PVC pipe shall conform to latest revision of ASTM D-3139, (joints for plastic pressure pipes using flexible elastomeric seals). Joints shall be bells that consist of an integral wall section with a locked-in, solid cross section elastomeric ring which meets requirements of ASTM F-477. Bell sections shall be at least as hydrostatically strong as pipe wall.

c. Fittings shall be ductile iron, mechanical joint, Class 250, conforming to AWWA specifications C110 for short body cast iron fittings. Fittings shall be tar-coated outside and shall receive standard cement lining with bituminous seal coat on inside as specified for ductile iron pipe.

d. Joints for ductile iron fittings shall be of push-type, conforming to AWWA C111 (ANSI A21.11). Bells for push-on type joints shall have an annular recess in pipe socket to accommodate a single rubber gasket. Plain ends shall be suitably beveled to permit easy entry into bell. Basket and annular recess of socket shall be so designed and shaped that gasket is locked in place against displacement as joint is assembled.

(2) C-900 Polyvinyl Chloride Pipe

- a. Polyvinyl Chloride Pipe shall conform to AWWA Specifications C-900, pressure rated Class 150 (SDR 18) and Class 200 (SDR 14).
- b. Fitting shall be cast iron Mechanical Joint Class 250 conforming to AWWA Specification C-110 for short body cast iron fittings. Fittings shall be tar-coated outside, and shall receive the standard cement lining with bituminous seal coat on the inside.
- c. Joints shall be of push-on type conforming the AWWA Specifications for C-900 water mains.
- d. AWWA Specification C-900 pressure rated Class 150 (SRR 18) can be used and is considered an equal to ASTM Specification Class 250 pipe.

(3) C-909 Molecular Oriented Polyvinyl Chloride Pipe

- a. Molecular oriented polyvinyl chloride pipe shall conform to AWWA Specifications C-909 pressure rated class 150.
- b. Fittings shall be cast iron mechanical joint class 250 conforming to AWWA specifications C-110 for short body cast iron fittings. Fittings shall be tar-coated outside and shall receive the standard cement lining with bituminous seal coat on the inside.
- c. Joints shall be of push-on type conforming to AWWA Specifications for C-909 water mains.
- d. AWWA Specification C-909 pressure rated Class 150 pipe can be used and is considered an equal to ASTM Specification Class 250 pipe.

(4) All 90° bends and other fittings that require trust blocks shall be ductile iron (or approved equal) with transition gaskets to accommodate outside diameter of PVC pipe.

(5) Lubrication for rubber connected joints and fittings shall be water soluble, non-toxic, non-objectionable in taste and odor and have no deteriorating effect on PVC or gaskets and shall be supplied by pipe manufacturer.

(6) All PVC pipe and fittings shall bear National Sanitation Foundation (NSF) approved seal for potable water.

(7) Grip rings by Romac or approved equal shall be used at all times in joining PVC pipe to ductile iron fittings, valves, hydrants, etc.

B. Encasement Pipe

(1) Where indicated on Drawings, Contractor shall install encasement pipe by boring method. Encasement pipe shall be installed using equipment that mechanically bores the hole with a cutting head and continuous auger inside the encasement pipe. Encasement pipe shall be installed simultaneously with boring the hole.

(2) Encasement pipe shall be steel, plain end, uncoated and unwrapped, have a minimum yield point strength of 35,000 psi and conform to ASTM A252 Grade 2 or ASTM A139 Grade B without hydrostatic tests. Steel pipe shall have welded joints and be in at least 18-foot lengths. Used pipe can be used if the minimum wall thickness is met.

(3) Wall thickness of pipe shall be a minimum of 0.250 inches. Diameter of pipe shall conform to requirements of Kentucky Transportation Cabinet, Bureau of Highways for highway crossings.

(4) Spacers shall be used at every 10 feet.

(5) Manufactured end sections shall be used at the end of the steel encasement.

C. Gate Valves and Boxes

(1) All gate valves shall be of double disc, parallel seat type or resilient seated type, iron body, non-rising stem, fully bronze mounted with O-ring seals. Valves shall be of standard manufacture and of highest quality both as to materials and workmanship and shall conform to latest revisions of AWWA Specification C-500. Valves shall have a rated working pressure of 200 psi, with standard mechanical joint, A-2380-23 as manufactured by Mueller Co., Darling, Smith, Kennedy, or approved equal.

(2) Gate valves for buried service shall be furnished with mechanical joint end connections, unless otherwise indicated on Drawings. End connections shall be suitable to receive ductile iron, or PVC.

(3) Gate valves for inside service shall be handwheel operated, double disc, parallel seat type, iron body, fully bronze mounted with O-ring stem seals, flanged faced and drilled to match ASA Class 125.

(4) All gate valves shall have name or monogram of manufacturer, year valve casting was made, size of valve, and working pressure cast on the body of valve.

(5) Gate valves set with valve boxes shall be provided with a 2" square operating nut and shall be opened by turning to left (counterclockwise); gate valves set in vaults or pits shall be furnished with handwheels.

(6) Gate valves shall be installed in a vertical position with 6" PVC pipe serving as a valve box. A ductile iron lid shall be furnished being marked "WATER". They shall be set vertically and properly adjusted so that cover will be in the same plane as finished surface of ground, street, or sidewalk.

(7) Valve boxes shall be accurately centered over valve operating nut, and backfill thoroughly tamped about them. Valve box bases shall not rest on valves but shall be supported on crushed stone fill. They shall be set vertically and properly cut and/or adjusted so that tops of boxes will be at grade in any paving, walk or road surface, and two to three inches above ground in grass plots, fields, woods or other open terrain. Valve boxes shall be as manufactured by Mueller, M & H Valve Company, Darling, Russell Pipe and Foundry, or approved equal.

(8) A two feet by two feet by four inch thick concrete pad shall be furnished around valve boxes.

#### D. Air Release Valves

(1) Air release valves and boxes shall be installed at high points in lines as indicated on Drawings or as directed by Engineer.

(2) Valve shall have a 1 inch screwed inlet diameter with a minimum 3/32 inch size orifice. Body and cover shall be constructed of cast iron and float shall be of stainless steel or hard rubber. Valves shall be suitable for use in lines with an operating pressure range of 0 to 150 psi. Valves shall be equivalent to APCO No. 75, or approved equal.

(3) Air release valve box shall be 24 inch reinforced concrete pipe conforming to ASTM C76, Class II, Wall B, and shall be set on a No. 9 crushed stone or gravel base. Cover shall be cast iron, medium duty, perforated and of proper size to fit bell of pipe.

#### E. Meter Services

(1) Service clamps or saddles shall be used for service connections to PVC pipe of all sizes. Saddles for PVC mains shall be bronze and be Mueller Series H-13000 or approved equal.

(2) Corporation stops for use in service clamps or in direct taps shall be Mueller H1500 or approved equal, for PVC pipe. Stops shall be appropriate for 3/4 and 1 inch size polyethylene service pipe or 1-1/2 and 2 inch size PVC service pipe. Plastic insert stiffeners shall be used inside polyethylene pipe at junction with corporation stop.

F. Service Pipe

(1) 3/4" and 1" Polyethylene Pipe (PE)

a. Pipe shall be made from virgin, ultra-high molecular weight polyethylene resin.

b. Dimensions and tolerances shall meet values as listed in ASTM D-2737, latest revision, "Specifications for Polyethylene Plastic Pipe (SDR-PR)". Standard dimension ratio shall be SDR9-PE3048.

c. Pipe shall be rated for use with water at 73.4° F at hydrostatic design stress of 630 psi and a maximum working pressure of 200 psi. Pipe shall sustain water pressure of 340 psi for 1000 hours with water at 73.4°F.

d. Surface shall be homogeneous inside and out and completely free of irregularities. Random testing shall be performed at intervals during all production runs to assure uniformity in all respects. The tubing shall carry the National Sanitation Foundation seal of approval for potable water.

e. Pipe shall be marked in lettering at intervals of not more than five (5) feet and such marking shall include nominal size; manufacturer's name or trademark; pressure rating for water at 73.4° F., 200 psi; applicable ASTM specification; ASTM material specification, PE 3408; standard dimension ratio, SDR-9; the National Sanitation Foundation Seal of Approval (NSF mark) and production code.

(2) 2" polyvinyl chloride service pipe shall meet the same requirements as those for PVC water mains.

G. Meter Boxes

(1) Meter boxes shall be P.V.C. and shall be 18" in diameter x 30". Meter box shall be white.

(2) Metal lids for boxes shall be flat type and be VWM-18-2 by Vestal Manufacturing or approved equal. Metal lids shall be predrilled to accept touch read connection.

H. Meter Setting Equipment

(1) Copper meter setters for 5/8" x 3/4" meter settings without individual pressure reducing valves, shall be catalog number H-1434-2 by Mueller Co. or approved equal. All setters shall have two valves, one being an angle ball valve and the other being a double check valve. Locking devices with pins and seals furnished, shall be provided for all setters. All connections shall be the type for PE pipe. Meter setters for settings having individual PRV's shall be those corresponding to the catalog numbers listed above.

(2) A plastic insert stiffener shall be used inside the PE pipe at its connection to both sides of the meter yoke. Stiffener shall be approved equal to Ford Catalog insert 71 for 3/4" pipe and insert 72 for 1" pipe.

(3) A 3/4" X 18" P.V.C. pipe shall be installed in box to hold the meter setter in place. The meter setter should have a brace eye to accommodate this pipe.

I. Fire Hydrants

(1) Contractor shall furnish and install dry head type fire hydrants where indicated on Drawings or as directed by Engineer. Hydrants shall conform in all respects to requirements of AWWA C502-73. Hydrant barrel shall have safety breakage feature above the ground line. All hydrants shall have mechanical joint shoe connection, two 2-1/2 inch discharge nozzles and one 4-1/2 inch pumper nozzle with caps fitted with cap chains. Connection threads and operating nuts shall conform to National Standard Specification as adopted by National Board of Fire Underwriters.

(2) Operating nut shall be 1-1/2 inches, and shall open left (counterclockwise). Main valve shall have 5-1/4 inch full opening for 6" hydrants and 4-1/2" opening for 4" hydrants, and be of the compression type opening against water pressure so that valve remains closed should the barrel be broken off.

(3) Hydrant shall be fully bronze mounted. Main valve shall have a threaded bronze seat ring assembly of such design that it is easily removable by unscrewing from a threaded bronze drain ring. Bronze drain ring shall have multiple ports providing positive automatic drainage as the main valve is opened or closed.

(4) Drainage waterways shall be completely bronze to prevent rust or corrosion.

(5) Operating stem shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stop shall be provided to limit a stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir protected from weather and the waterway with O-ring seals.

(6) Hydrants shall be designed for 150 psi working pressure and shop tested to 300 psi pressure with main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet.

(7) Hydrants shall be set plumb with not less than three cubic feet of crushed stone and backed with at least one cubic foot of Class "C" concrete or equivalent. Hydrants shall be attached to water main by an anchor tee, anchor coupling, gate valve and 36 inch ductile iron connecting coupling. All piping from water main to hydrant shall be ductile iron. All piping from water main to hydrant shall be ductile iron.

(8) Hydrants shall be installed with a vertical distance from the center of the pumper nozzle to the ground of 16 to 18 inches. Gradelok by Assured Flows, Inc. shall be installed between the gate valve and hydrant when the 16 to 18 inch clearance cannot be obtained with finish grade. All fire hydrants shall be provided with a shut-off valve in the hydrant lateral as indicated on Drawings. Inlet cover depth shall be minimum 36 inches.

(9) Hydrants shall be Centurion Model A423 with 5-1/4" opening for 6" hydrants and Model A421 with 4-12/" opening for 4" hydrant as manufactured by Mueller Company.

(10) Hydrants shall be painted with one (1) coat of No. 2472 Safety Red (Porter Paint or approved equal.) All cleaning, priming and painting shall be in accordance with paint manufacturers recommendations

(11) Pay item for fire hydrant shall include all material from the main water to hydrant including tee, valve, hydrant, piping, grip rings, grade lock, gravel, concrete blocks, meter box and lid and etc.

#### J. Marking Tape

(1) Tape shall consist of a solid aluminum foil coil encased in a protective plastic jacket. The materials and ink color shall not change when exposed to the alkalis, acids and other destructive chemical variances commonly found in soil. The foil coil shall be visible to ensure continuity. Tape shall be a minimum width of 2 inches and colored blue with the word "water" marked on the tape. The minimum thickness shall be 5.5 mil with a minimum tensile strength of 4000 psi. Tape shall in installed a minimum of one foot above the top of the pipe".

(2) Marking tape shall be considered incidental to the water line and no additional payment will be made for the marking tape.

K. Tracer Wire

- (1) A No. 8 copper wire shall be installed parallel to all nonmetallic pipe.
- (2) Tracer wire shall be installed to ground level for all valves and hydrants as shown on typical details.
- (3) Tracer wire shall be considered incidental to the water line and no additional payment will be made for the marking tape.

L. Pressure Reducing Valves (PRV's)

(1) Individual Residences

Pressure reducing valves for individual residences shall be installed as shown on plan as directed by Engineer, and shall be Wilkins Model 600 No. 2 or approved equal, with a maximum inlet pressure 200 psi, factory set outlet pressure 60 psi. PRVs shall be installed in customer's meter box in tandem copper meter setter.

All setters shall have two valves, one angle ball valve and one angle check valve. All connections shall be suitable for Polyethylene service pipe. Setters shall be a TVB-172-7W by Ford or approved equal.

4. SHOP DRAWINGS

Contractor shall furnish to Engineer for approval, six (6) sets of shop drawings, catalog cuts and certifications for all materials used in construction of water lines. Contractor shall not order material or equipment until approval is given by Engineer.

5. EXCAVATION FOR TRENCHES

A. Except as otherwise noted or directed by Engineer, trenches in which water lines are to be laid shall be excavated in open cut to depths as indicated on Drawings. In general, this shall be interpreted to mean that machine excavation in earth shall not extend below an elevation permitting lower quadrant of pipe to be bedded in undisturbed ground, and excavation in rock shall extend below invert elevation a distance to accommodate a layer of bedding material as specified elsewhere in this section.

B. When excavated material is placed on paved roads, the contractor shall clean road with power broom at the end of each days work or as directed by the Engineer.

C. When excavated material is placed on gravel or dirt roads, the contractor shall place crushed stone to the same thickness of the road prior to construction as determined by the Engineer.

D. If foundation is good firm earth and machine excavation has been accomplished as set out hereinbefore, remainder of material shall be excavated by hand and earth pared or molded to give full support to lower quadrant of barrel of each pipe. Where bell and spigot pipe are involved, bell holes shall be excavated during this latter operation to prevent bells from being supported on undisturbed earth. If for any reason machine excavation in earth is carried below an elevation that will permit type of bedding specified, then a layer of granular material shall be placed so that lower quadrant of pipe will be securely bedded in granular fill.

E. If foundation is rock and excavation has been undercut as set out hereinbefore, a bed of No. 9 crushed stone or tamped earth shall be placed to provide continuous support for lower quadrant of pipe. No extra payment will be made for this No. 9 crushed stone.

F. Trenches shall be a minimum width of 12 inches plus to diameter of the pipe to provide free working space on each side of pipe and to permit proper backfilling around pipe, but unless specifically authorized by Engineer, trenches shall in no case be excavated or permitted to become wider than 2'-0" plus nominal diameter of pipe at level of or below top of pipe. If trench does become wider than 2' plus nominal diameter of pipe at level of or below top of pipe, special precautions may be necessary such as providing compacted, granular fill up to top of pipe or providing pipe with additional crushing strength as determined by Engineer after taking into account actual trench loads that may result and strength of pipe being used; Contractor shall bear the cost of such special precautions as are necessary. Trenches cut in roads and streets shall not exceed a maximum width of 3'-6" plus nominal diameter of pipe at level of road or street surface.

G. Unless specifically directed otherwise by Engineer, not more than 1000 feet of trench shall be opened ahead of pipe laying work of any one crew, and not more than 1000 feet of open ditch shall be left behind pipe laying work of any one crew. Watchmen or barricades, lanterns and other such signs and signals as may be necessary to warn public of dangers in connection with open trenches, excavations and other obstructions, shall be provided by and at expense of Contractor.

H. Pipe laying operation shall be continuous from beginning to end with no gaps allowed in the line unless approved by the Engineer.

#### 6. REMOVAL OF WATER

Contractor, at his own expense, shall provide adequate facilities for promptly and continuously removing water from all excavation.

7. UNAUTHORIZED EXCAVATION

Whenever excavation is carried beyond or below required lines and grades, except as, and where authorized by Engineer, Contractor, at his own expense, shall refill said excavated space with suitable material in a manner approved by Engineer.

8. LAYING DEPTHS FOR WATER MAINS

In general, water mains shall be laid with a minimum cover of 36 inches, unless otherwise indicated on Drawings or directed by Engineer.

9. PIPE BEDDING

A. Foundation for pipes laid in trenches shall be prepared so that entire load of backfill on top of pipe will be carried uniformly on barrel of pipe. Pipe bells shall not carry any load of backfill.

B. In trenches where solid rock is removed from trench bottom, pipe shall be bedded on six (6) inches thickness of No. 9 crushed stone. No extra payment will be made for rock excavation or No. 9 crushed stone.

C. When wet, mucky, yielding or otherwise unsuitable material is located below proposed pipe bedding elevation, such material shall be removed and replaced with No. 9 crushed stone. In such case, payment will be made per ton of "Extra Crushed Stone Bedding" actually placed in trench to replace unsuitable material excavated. Unsuitable material shall be removed and replaced with crushed stone at direction of Engineer.

10. PIPE LAYING

A. All pipe shall be laid with ends abutting and true to lines indicated on Drawings or as directed by Engineer. Pipe shall be fitted and matched so that it will provide a smooth and uniform invert and be centered in the trench. All pipe shall be laid uphill when grade exceeds five percent.

B. Fittings and special attachments for water main shall be provided and laid as pipe is laid and where directed by Engineer or as indicated on Drawings.

C. Before each piece of pipe is lowered into trench, it shall be thoroughly swabbed out to insure its being clean. Any piece of pipe or fitting which is known to be defective shall not be laid or placed in trench. If defective pipe or fittings shall be discovered after pipe is laid, it shall be removed and replaced with a satisfactory pipe or fitting without additional charge. In case a length of pipe is cut to fit in a line, it shall be so cut as to leave a smooth end at right angles to longitudinal axis of pipe.

D. Jointing shall be accomplished in accordance with the manufacturer's recommendations.

E. Interior of pipe shall be cleaned of dirt, jointing materials, and superfluous materials of every description. When laying pipe is stopped for any reason, exposed end of pipe shall be closed with a plug fitted into pipe bell so as to exclude earth or other material and precautions taken to prevent floatation of pipe by runoff into trench.

F. No backfilling (except for securing pipe in place) over pipe will be allowed until Engineer has had an opportunity to make an inspection of joints, alignment and grade in section laid, but such inspection shall not relieve Contractor of further liability in case of defective joints, misalignment caused by backfilling and other such deficiencies that are noted later.

G. Anchorage of Bends, Tees, Plugs, Hydrants and Valves

(1) At all tees, plugs, caps and bends of 11-1/4° and greater, and at reducers or in fittings where changes in pipe diameter occur, movement shall be prevented by using suitable harness, thrust blocks or ballasts. Hydrants and valves shall be provided with similar protection. Thrust blocks and supports shall be as indicated on Drawings, with sufficient volumes of concrete being provided; however, care shall be taken to leave weep holes unobstructed and allow for future tightening of all nearby joints. Unless otherwise directed by Engineer, thrust blocks shall be placed so that pipe and fitting joints will be accessible for repair.

(2) Bridles, harness or pipe ballasting shall meet with approval of Engineer. Steel rods and clamps shall be galvanized or otherwise rust-protected.

(3) No extra pay shall be allowed for work on proper anchorage of pipe, fittings or other appurtenances; such items shall be included in unit price bid for supported item.

H. In cold weather, extra caution shall be used in handling and laying PVC pipe.

I. No more pipe than can be used in one week shall be strung out in advance.

11. BACKFILLING PIPELINE TRENCHES

A. Backfilling pipeline trenches shall be accomplished in accordance with methods outlined hereinafter, and as indicated on Drawings. In all cases, walking or working on the completed pipelines, except as may be necessary in tamping or backfilling, will not be permitted until trench has been backfilled to a point one (1) foot above top of pipe. Filling of trench shall be carried on simultaneously on both sides of the pipe in such a manner that completed pipeline will not be disturbed and injurious side pressures do not occur.

The methods of backfilling shall be as follows:

Method A - Areas Not Subject to Vehicular Traffic

The lower part of the trench up to a point one (1) foot above the top of the pipe shall be hand placed backfilled with earth free from rock, acceptable to the Engineer, or with crushed stone when a condition exists as mentioned in Paragraph B, this article. In the remainder of the trench, the backfill material shall be reasonably free from large rock (over one-half cubic foot in volume) and may be shoveled into the trench without compacting and heaped over whenever, in the opinion of the Engineer, this method of backfilling may be used without inconvenience to the public. The backfilling of earth material or crushed stone under this method is NOT a separate pay item.

Method B - All Existing Gravel Streets, Roads and Drives  
(Open Cut Method)

(1) Trench shall be backfilled with DGA. Backfill shall be placed full depth in trench to bottom of surfacing material.

(2) No extra payment will be made for crushed stone or backfilling.

Method C - All Existing Asphalt or Concrete Paved Drives.

(1) All existing paved driveways shall be free bored unless indicated otherwise on plans.

B. In areas where large quantities of rock are excavated, and the available excavated earth in the immediate vicinity is insufficient for placing the required amount of backfill over the top of pipe as set forth in Method A this article, then the Contractor must either haul in earth or order crushed stone aggregate for backfilling over the top of the pipe. Neither the hauling in and placing of earth nor the ordering and placing of crushed stone aggregate to fulfill the backfill requirements set forth in the aforesaid Method A is considered a pay item.

C. When directed by the Engineer, the Contractor shall add water to the backfill material or dry out the material when needed to attain a condition near optimum moisture content for a maximum density of the material when it is tamped. The Contractor shall obtain a compaction of the backfill of at least 90 percent of standard (ASTM D-698) Proctor density where mechanical tamping of backfill is required.

12. CONCRETE ENCASEMENT

Concrete encasement shall be placed where shown on contract drawings, or as directed by Engineer. Concrete shall be Class 3500 psi and shall be mixed sufficiently wet to permit it to flow under pipe to form a continuous bed. In tamping concrete, care shall be taken not to disturb grade or line of pipe or injure joints. Concrete placed outside specified limits or without authorization from Engineer will not be subject to payment.

13. CLEAN-UP

Contractor shall remove all debris and surplus construction materials resulting from his work on a daily basis. Contractor shall grade ground along each side of pipe trench in a uniform and neat manner leaving construction area in a shape as near as possible to original ground line. If cleanup is not performed daily, Engineer will shut down project and/or suspend payments.

14. CONNECTION TO EXISTING SYSTEM

A. Unless otherwise directed by the Water District, Contractor shall connect the new water main to the existing water system. The Contractor must notify the Water District when the connection is to be made so that representatives of the Water District may operate existing valves and witness the connection. A minimum notice of 48 hours must be given.

15. SEEDING, FERTILIZING AND MULCHING

Trenches in areas that are not paved shall be prepared for seeding. Materials and methods for seeding, fertilizing and mulching are described elsewhere in these specifications.

16. RESTORATION

A. In general, contractor shall be responsible for proper care and maintenance of all existing structures, both above and below surface, which are encountered during progress of work. No structures of any kind shall be removed without consent of Engineer.

B. Contractor shall care for and maintain all pipes and services for gas, sewer, telephone or electricity where same are encountered in prosecution of work. In event any such services for water, gas, electricity, sewer or telephone are disturbed, damaged or destroyed, Contractor shall arrange with owner of such service, or facility, for its replacement and restoration at Contractor's expense.

17. TESTING

A. Water mains, services and all appurtenances, shall be tested to 50 psi over the operating pressure of the pipe. The operating pressure will be considered the pressure that would come from connecting to the Boone County Water Association at Highway 42. Defective joints of pipe shall be cut out and replaced as directed by Engineer. Cracked or defective pipe fittings, valves or hydrants disclosed in pressure test shall be replaced by Contractor with sound material, and test shall be repeated until test results are satisfactory to Engineer.

B. Contractor shall maintain required pressure for six hours and shall measure the amount of water necessary to maintain this pressure for this length of time. The amount of water used to maintain pressure shall not exceed five gallons per 24 hours per mile of pipe per inch nominal diameter of the pipe.

C. All leaks shall be repaired whenever or wherever there is evidence of a leak. Water used by Contractor shall be paid for by Contractor at the rate of \$2.50 per 1,000 gallons.

D. All fittings, meters, equipment, tools and other material required for testing shall be provided by Contractor, and remain property of Contractor at completion of project.

18. DISINFECTION OF WATER LINES

A. New potable water lines shall not be placed in service, either temporarily or permanently, until they have been thoroughly disinfected in accordance with the following requirements and to the satisfaction of Engineer.

B. After testing, a solution of hypochlorite using HTH or equal shall be introduced into the section of the line begin disinfected sufficient to insure a chlorine dosage of at least 50 ppm in the main. While the solution is being applied, the water should be allowed to escape at the ends of the line until tests indicate that a dosage of at least 50 ppm has been obtained throughout the pipe. Open and close all valves and cocks while chlorinating agent is in the piping system. The chlorinated water shall be allowed to remain in the pipe for 24 hours, after which a residual of at least 25 ppm shall be obtained. The disinfection shall be repeated until 25 ppm is obtained, after

which time the main shall be thoroughly flushed until the residual chlorine content is not greater than 1.0 ppm. Contractor shall have testing equipment for testing chlorine content. Chlorinated water resulting from disinfection of water line shall be disposed in a manner which will not violate 401 KAR 5:031.

C. Following disinfection of the line, bacteriological samples shall be collected and analyzed in accordance with the requirements of Kentucky Department for Natural Resources and Environmental Protection. When the samples have been approved, the new line then may be connected to the system. Cost of collecting and analyzing samples shall be paid by Contractor.

19. METER CONNECTIONS

A. Upon completion of laying of water main on each individual line, the meter boxes will be set, the line tested and sterilized and the line put in service. Before the contractor will be allowed to start another individual line, work must be completed or work being performed on the previously constructed line and completed on all other constructed lines. If the contractor has more than one crew on the project, additional lines can be started upon the approval of the Engineer.

END SECTION

**SECTION 02920 - SEEDING, FERTILIZING AND MULCHING**

1. RELATED DOCUMENTS

General provisions of Contract, and General, Supplemental, and Special Conditions apply to this Section.

2. DESCRIPTION OF WORK

Provide labor, material, equipment and services necessary for proper and complete seeding and mulching.

3. QUALITY ASSURANCE

A. The intent of these Specifications is to require the Contractor to provide, in all areas to be seeded, fertilized and mulched, a smooth uniform turf of the grasses specified free from bare spots, eroded areas, weeds or other deficiencies. Acceptance by the Engineer is conditional upon compliance with this intent after the initial growing season.

4. MATERIALS

A. Mulch shall be a high quality small-grain straw or a hydraulically applied wood-cellulose fiber mulch approved by Engineer.

B. Commercial fertilizer shall be a complete fertilizer, uniform in composition, dry and free flowing. Fertilizer which becomes caked or otherwise damaged making it unsuitable for use will not be accepted.

C. Lime shall be agricultural limestone containing not less than 85% of total carbonates and shall be ground to a fineness that 50% will pass through a 100-mesh sieve and 80% will pass through a 20-mesh sieve. Coarser material will be acceptable provided that specified rates of application are increased proportionally on basis of quantities passing 100-mesh sieve.

D. Seed Mixture

(1) Lawn Seed shall be guaranteed by dealer and distributed as follows:

A. Farm or pasture

80% Kentucky 31 Tall Fescue  
20% Annual Ryegrass

B. Residential Yards

40% Kentucky Bluegrass  
40% Fine Leaf Fescue  
20% Annual Ryegrass

(2) Seed mixture shall be sown at rate of 5 pounds per 1000 square feet.

5. SOIL IMPROVEMENTS

Fertilizer shall be applied to all seeded areas as follows:

A. Agricultural limestone - 75 pounds per 1000 square feet.

B. Fertilizer - 20 pounds, 10-10-10 fertilizer per 1,000 square feet.

C. Application

(1) Limestone shall be thoroughly mixed into topsoil as far ahead of seeding as will not interfere with other grading operations.

(2) Fertilizer shall be applied to areas being prepared for seeding and shall be mixed lightly in top few inches of topsoil.

6. SEEDING AND MULCHING

A. Seeding

(1) Immediately before seed is sown, loosen soil to a depth of 3 inches by rotary tools, discs, harrows, or other approved methods. Engineer may reduce depth to which soil is loosened on steep slopes or places inaccessible to mechanical equipment.

(2) Remove all large or unsightly clods or stones, and other foreign material brought to surface and repair all gullies, washes, or disturbed areas before seed is applied.

(3) Seed shall be broadcast either by hand or by approved sowing equipment at rate specified.

(4) Do not perform seeding during high winds that would prevent uniform distribution of seed.

B. Mulching

(1) All seeded areas shall be mulched with straw to depth of approximately 1-1/2 inches. Mulching shall follow seeding operation not later than 48 hours.

7. PLANTING SEASON

Spring seeding season shall be between February 15 and April 15. Fall seeding season shall be between August 1 and October 20. Seeding seasons may be extended only at direction of Engineer.

8. CLEAN-UP

Soil, peat or similar material which has been brought onto paved areas within or outside construction limit by hauling operations or otherwise shall be removed promptly, keeping these areas clean at all times. Upon completion of seeding, all excess soil, stones and debris which have not previously been cleaned up shall be removed from site or disposed of as directed by Engineer. All lawn areas shall be prepared for final inspection.

9. MAINTENANCE

Maintenance shall begin immediately following last operation of seeding and shall continue until lawn is formally accepted. Maintenance shall include sufficient watering, weeding, cultivating, mulching, regular mowing of seeded areas, and removal of dead materials.

10. INSPECTION FOR ACCEPTANCE

Inspection of work of this section to determine completion, exclusive of possible replacement of seed, will be made by Engineer upon written notice requesting such inspection submitted at least ten (10) days prior to anticipated date of inspection and provided that an 80% minimum coverage per square foot for all seeded lawn areas has been established. Contractor shall guarantee, at the time of this inspection, that the seeded areas will be in compliance with the intent of this Specification described herein. This guarantee shall apply to all permanent seeding performed in conjunction with project, regardless of type protection used or season in which seeding is performed.

11. GUARANTEE

A. When seeding does not meet guarantee requirements at time of inspection, Contractor will be advised of amount and location of corrective work deemed necessary. Additional work required may include preparation of a new seedbed, refertilizing, reseeding, remulching, or any erosion control items that are required. Contractor shall perform all corrective work as soon as

favorable working conditions occur after being advised of corrective work required. Corrective work and materials required to fulfill guarantee requirements will not be paid for, except as hereinafter provided for unavoidable damage.

B. When unavoidable damage occurs after date project is declared complete and before inspection previously described, then payment will be made at original contract unit prices for additional seeding and protection work ordered by Engineer. Unavoidable damage may result from slides, vehicular traffic, fires, and deluges. Failure of seed to sprout and grow will not be considered unavoidable damage.

C. From time seeding and protection work begins until date project is declared complete, keep all seeded areas in good condition at all times. Damage to seeded areas or to mulch materials shall be promptly repaired as directed. All work and materials necessary to protect, maintain, and restore seeded areas during life of contract shall be performed at no additional cost to Owner, except additional work caused by changes in project authorized by Engineer.

D. When it becomes necessary to disturb previously seeded areas at direction of Engineer, payment for a reasonable amount of additional work, as determined by Engineer, will be made at original contract unit price. No payment will be made for additional work due to changes made for benefit of Contractor, nor will payment be made for corrective work required because Contractor has failed to properly coordinate his entire erosion control schedule thus causing previously seeded areas to be disturbed by operations that could have been performed prior to seeding.

END SECTION

**SECTION 03300 - CAST-IN-PLACE CONCRETE**

1. RELATED DOCUMENTS

General Provisions of Contract, General, Supplemental and Special Conditions, and General Requirements apply to this Section.

2. DESCRIPTION OF WORK

Provide labor, transportation, materials, tools, equipment and appliances necessary for proper and complete installation of all concrete work.

3. MATERIALS

A. General

All materials used in the work shall be stored and handled in such a manner as will prevent deterioration or intrusion of foreign matter. Material which has deteriorated or has been damaged shall be immediately and completely removed for premises. All material shall comply with requirements of standards of American Society for Testing and Materials.

B. Manufactured Materials

Manufactured materials such as cement, shall be delivered and stored in original packages, plainly marked with brand and maker's name. Material in broken containers or in packages showing water marks or other evidence of damage will be rejected. Unless otherwise noted, all materials used in concrete work shall be as specified below:

(1) Portland Cement---Type I or Type III - ASTM C-150.

(2) Aggregates-----ASTM C-33.

a. Fine aggregates shall consist of natural sand having clean, hard, uncoated particles and free from injurious amounts of soft friable, thin, elongated or laminated pieces. Aggregates shall not absorb more than 3% moisture by weight. Maximum size of pieces shall be 3/4".

b. Coarse aggregates shall be crushed stone having clean, hard, uncoated particles and free from injurious amounts of soft friable thin elongated or laminated pieces. Aggregate shall not absorb more than 3% by weight.

- (3) Air Entraining Agent-----ASTM C-33.
- (4) Water shall be clean and free from deleterious amounts of acids, alkalis or organic materials.
- C. Metal Reinforcement: All reinforcing shall be ASTM A-615, with a minimum yield of 60,000 psi.
- D. Concrete Curing and Hardening Compound shall be Sonneborne "Kure-N-Seal" or equal.
- E. Anti-spalling compound shall be Sonneborne "Pitt-Loc" or equal.
- F. Expansion joint material shall be premoulded filler as manufactured by Homasote Co. (Homex 300); Dayton SURE-Grip (G-30) or equal.

4. CONCRETE - QUALITY

- A. Ready-mixed concrete complying with these Specifications and conforming to ASTM designation C-94, Strength Method shall be used.
- B. Type Concrete
  - Min. Compressive Strength at 28 days-----3,000 psi
  - Slump-----3-5 inches
  - Air Content-----4%
- C. Use of admixtures is prohibited except where written consent is given by Engineer.
- D. Ready mix design shall be submitted to Engineer for approval prior to ordering concrete for project.

5. REINFORCING

- A. Detailing, fabrication and placing shall conform to American Concrete Institute "Manual of Standard Practice for Detailing Reinforced Structures" (ACI-315).

6. CONVEYING AND DEPOSITING CONCRETE

- Procedures shall be in accordance with American Concrete Institute Standard "Recommended Practice for Measuring, Mixing and Placing Concrete." (ACI-614).

7. CURING

Concrete shall be maintained in a moist condition for seven (7) days after placing. Curing shall begin immediately after completion of final finishing operation.

8. COLD WEATHER REQUIREMENTS

Procedures shall be in accordance with American Concrete Institute "Recommended Practice for Winter Concreting" (ACI-604). Section "Minimum Requirements for Job Taking Maximum Risk" shall not be considered a part of this Specification.

9. FINISHING

A. Slabs

(1) Under no circumstances shall dry cement or a mixture of dry cement and sand be sprinkled directly on surface to absorb moisture or to stiffen mix.

(2) Finish for floor slabs shall be as follows:

Surface of slab shall be struck off true to elevations called for, and all surface water, laitance and dirt removed. After allowing the concrete to dry out from 20-30 minutes, depending on weather conditions, the surfaces shall be brought to final grade with a wood float. Surfaces shall be tested with a straight edge to detect high and low spots which shall be eliminated. After concrete has hardened sufficiently to prevent excess fine material from working to surface, surface shall be steel troweled to a smooth hard finish, impervious and free from imperfections, pits and other irregularities, and true to a maximum tolerance of 1/8" in six (6) feet.

10. CRUSHED ROCK FILL

Install a 4" crushed rock fill under all floor slabs on earth. Rock shall be clean crushed limestone, graded from 3/4" to 1-1/2" in diameter, spread evenly, tamped solid and brought to the proper elevation for the reception of the concrete slab, placed only after approval of graded and properly compacted subsurface.

11. INSPECTION

A. Concrete shall not be placed over pipes and conduits until such work has been tested, inspected and approved.

B. All concrete placed in violation of these provisions shall be subject to rejection.

12. NOTIFYING OTHER TRADES

Notify plumbing and Electrical Contractors and all other Contractors, at proper time to install all pipes, conduits, anchors or other equipment coming under their respective contracts in form work.

13. TESTING CONCRETE

A. Slump Test

At least one slump test shall be made before first concrete pour, at start of pouring any concrete at each 5 cubic yards deposited during one operation. These shall be made for the same samples as those taken for cylinder tests, and records of same kept therewith. Test shall be made according to ASTM Designation (C-143), and as required under ASTM Designation C-94 for ready-mixed concrete. Mix designed for a slump test of 2" and not more than 4", except in cases where thin sections would indicate in the opinion of the Engineer that a wetter mix is more desirable. The Contractor shall furnish necessary equipment for the slump test.

B. Cylinder Test

(1) At the start of concreting, the Contractor shall make from a single batch a set of four (4) cylinders per ASTM Designation C-31. Two shall be tested at 7 days and two at 28 days, per ASTM Designation C-39.

(2) At each time when twenty or more cubic yards of concrete are placed during one operation, and when the sum of smaller deposits of concrete equal thirty cubic yards since previous tests, and at any change in mix, four (4) cylinder tests will be required, two tested at 7 days and two at 28 days, per ASTM Designation C-39. In case of C-94 and C-172 shall be added. Class "A" concrete samples shall show a compressive strength of not less than 3500 lbs. per square inch in 28 days.

(3) The Contractor shall furnish all equipment for sampling and curing on the job, and shall bear the cost of laboratory curing and testing.

END SECTION